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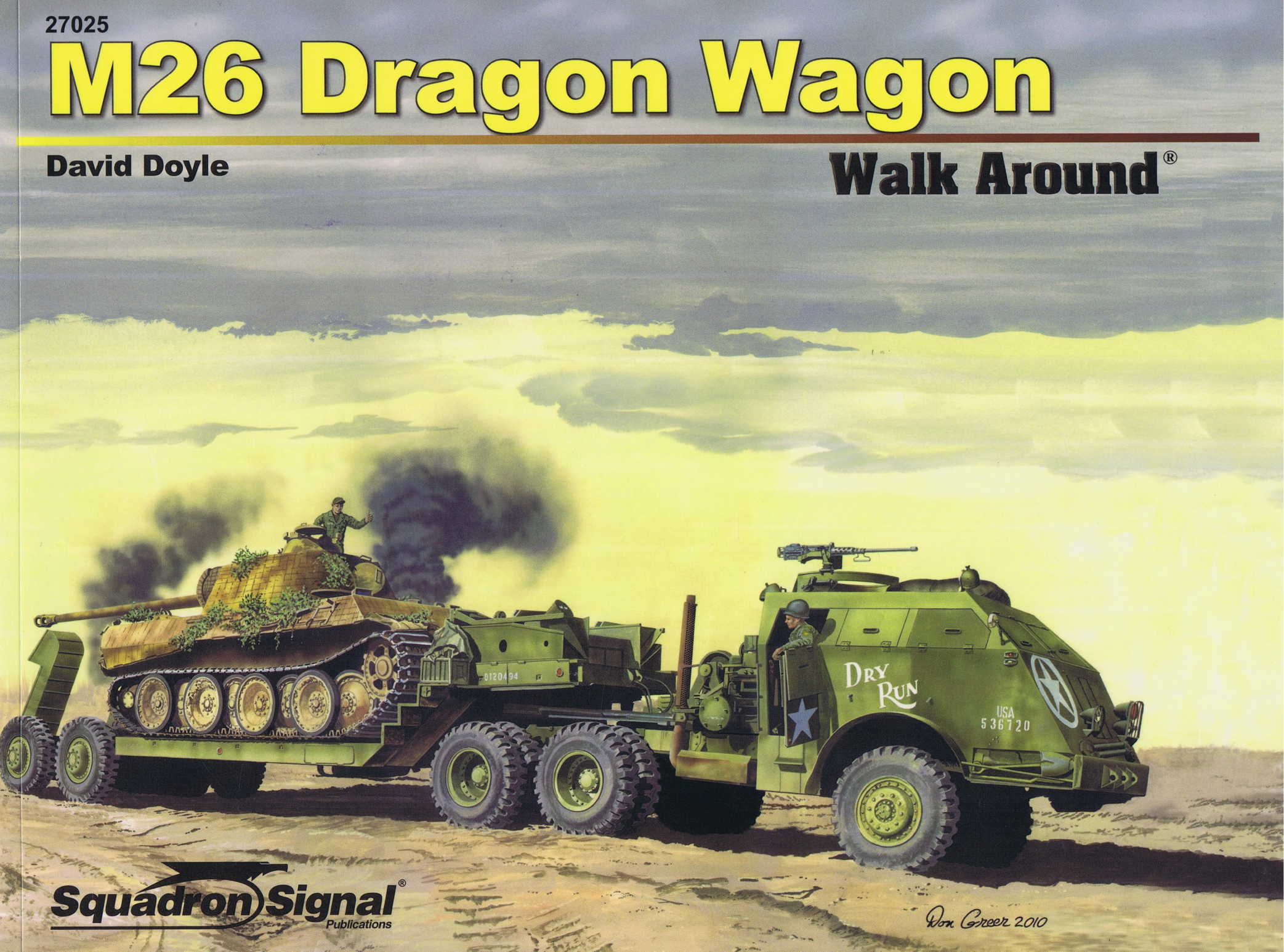
M26 Dragon Wagon

Walk Around®

David Doyle



Squadron Signal® Publications

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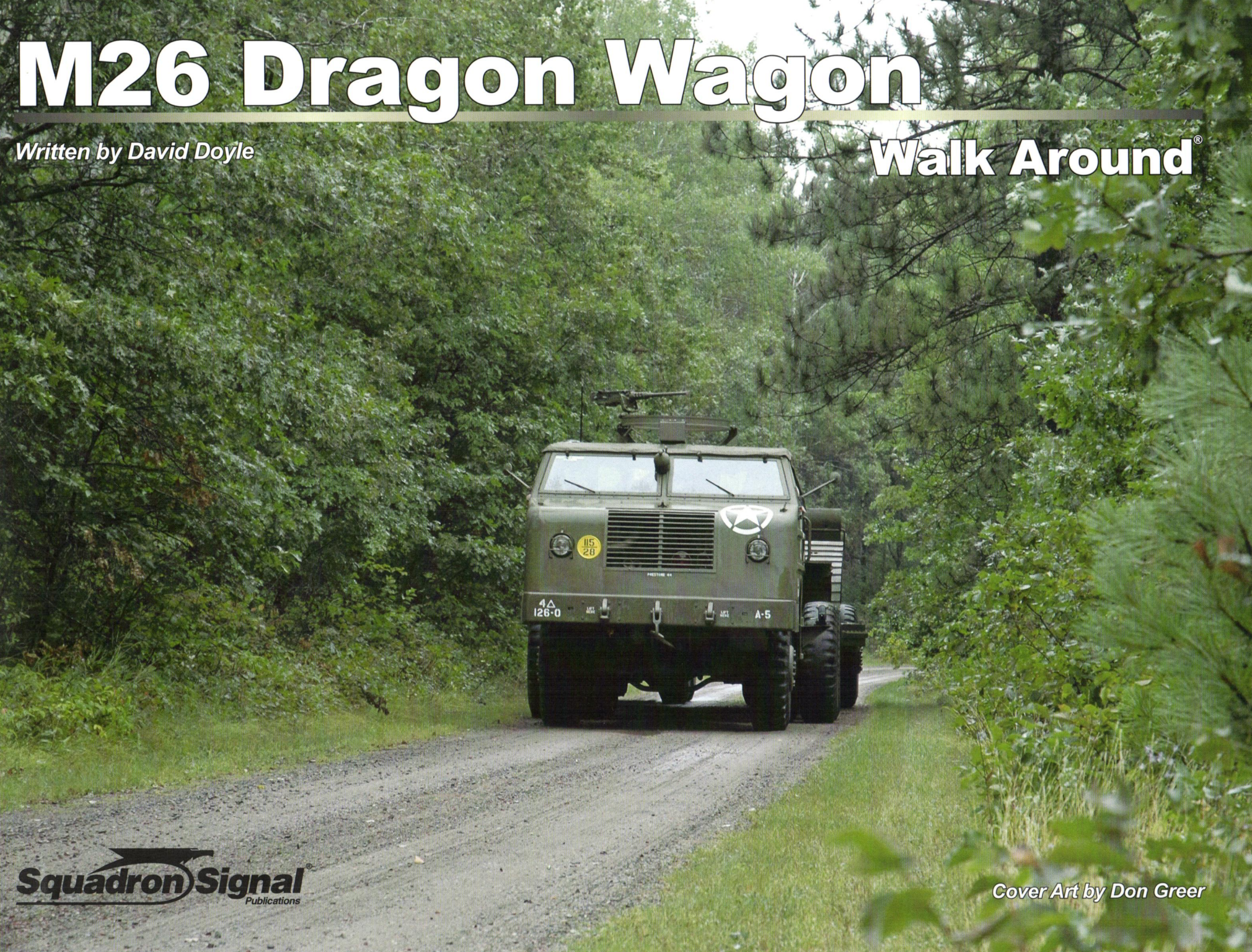

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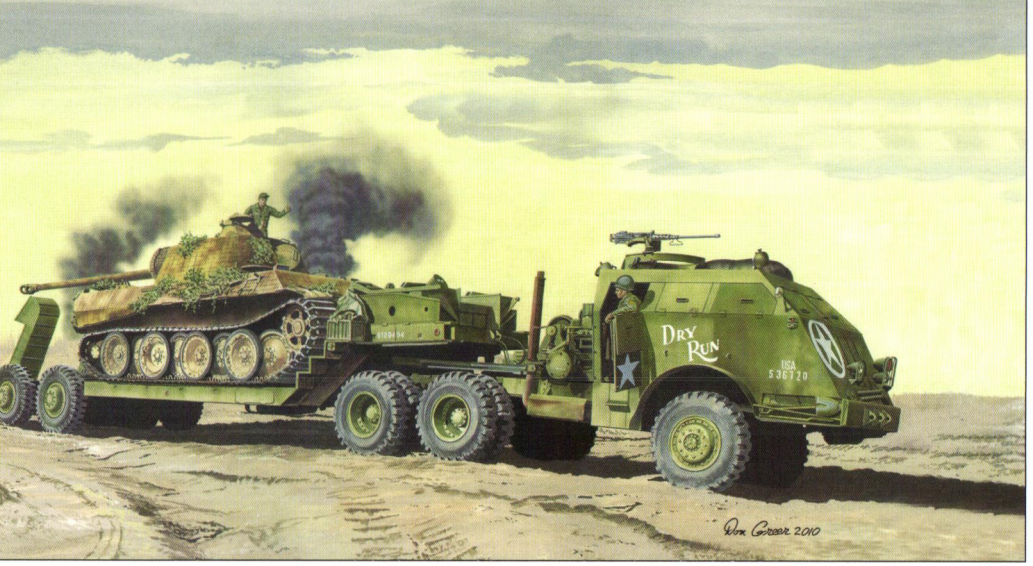

(Front Cover) *Dry Run,* an M26 of the 66th Ordnance Battalion, was photographed while recovering a captured Panther A tank in France on 28 July 1944. The scene was probably one that had not been totally secured, since all of the armored window shields except the one over the side door have been shut. Length and width markings are visible below the side door, and the digits of the registration number on the cab are widely spaced.

(Back Cover) An M26A1 of Company B, 704th Ordnance Battalion is transporting an M47 medium tank in postwar Germany, while crewmen are adjusting the wheel covers on the M15A1 semi-trailer. The spotlight on the windshield is lacking its removable front extension. With their 20-ply construction, the tires of the tractor and semi-trailer rarely exhibited flatness where they contacted a hard surface. Also worthy of notice are the double rear-view mirrors on the cab and the three nonstandard hooks welded to the trailer steps.

About the Walk Around® Series

The Walk Around® series is about the details of specific military equipment using color and black-and-white archival photographs and photographs of in-service, preserved, and restored equipment. *Walk Around*® titles are devoted to aircraft and military vehicles. The picture books focus on operational equipment, not one-off or experimental subjects.

Squadron/Signal Walk Around® books feature the best surviving and restored historic aircraft and vehicles. Inevitably, the requirements of preservation, restoration, exhibit, and continued use may affect these examples in some details of paint and equipment. Authors strive to highlight any feature that departs from original specifications.

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(Title Page) This restored M26A1 Pacific owned by Kevin and Thea Kronlund is every bit as impressive blasting up a country road today as these behemoths were during WWII.

Acknowledgments

This book would not have been possible without the generous assistance of Kevin and Thea Kronlund, whose beautifully restored M26A1 graces the title page, as well as most of the photos in the M26A1 portion of this book; the late Jacques Littlefield and the Military Vehicle Technology Foundation; and Chris Hughes, who graciously provided photos of Jacques's M26 for me. Additional invaluable help was provided by Tom Kailbourn and the staffs of the U.S. Army Transportation Museum and the National Military History Center. And a special thanks to my wife Denise, who patiently traveled with me, gathering these photos.

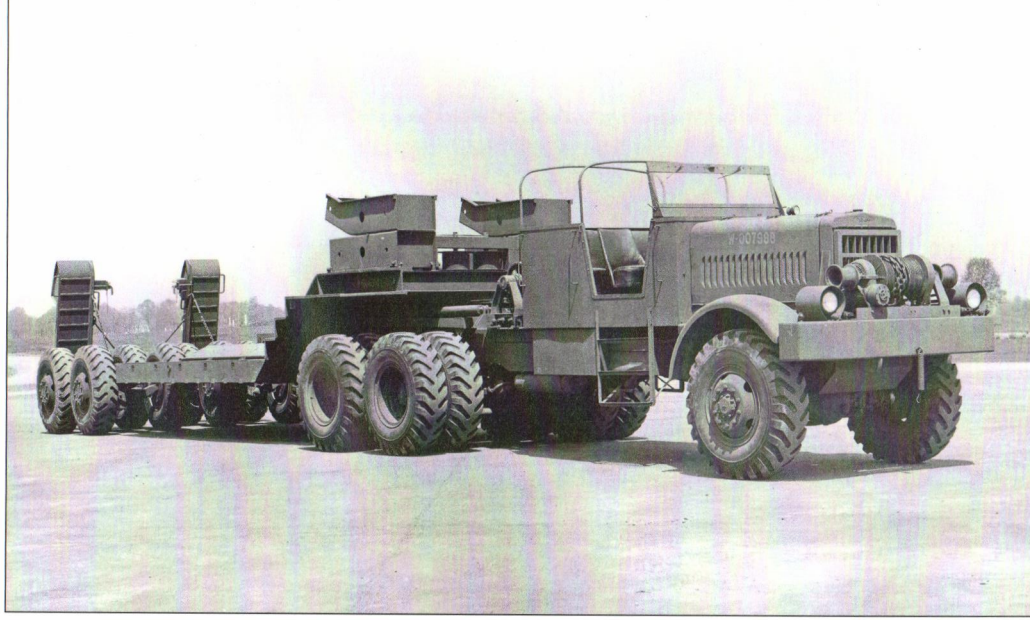
Introduction

The largest wheeled vehicle fielded by the U.S. Army during World War II – and even today an imposing machine – was the "40-ton Tank Transporter Truck Trailer M25." This massive machine comprised the M15 trailer and the M26 tractor – the latter popularly known as the Pacific, a name derived from its builder, Pacific Car and Foundry. Despite the name – and the production contract – the truck was actually designed by the San Francisco-based Knuckey Truck Company. Knuckey, a small firm whose primary business was building heavy off-road trucks, responded to a request by the military to create a wheeled tank recovery vehicle capable of operating in the desert. The 12-ton 6x6 was powered by a huge 1,090-cubic-inch-displacement Hall-Scott Model 440 engine. This six-cylinder engine's origins go back to a marine engine developed by Hall-Scott of Berkeley, California, in the 1930s.

The Knuckey design met the military requirements set forth by the Army, but in the Army's view, Knuckey lacked the production capacity to fulfill the military's needs. Accordingly, a contract was issued to Pacific Car and Foundry of Renton, Washington, to refine the design and mass-produce it. Pacific assigned the M26 its model number, TR-1, and set up production lines in the Renton plant just as the firm's contract to make Sherman tanks was winding down. Renton production of the big trucks was short-lived however, since the military decreed that the Renton-Seattle area was a critical labor area due to the shipyards and aircraft industries, and ordered the retriever production moved inland. A location was secured at the Midland Empire Fairgrounds in Billings, Montana, and manufacture of the retrievers was transferred there. As a result of the move, none of the vehicles was delivered between August 1943 and January 1944.

As originally produced, the big vehicles featured an armored cab that allowed them to operate with some degree of safety in combat areas. It was found however, that heavily armored tank retrievers like the M32, itself based upon the Sherman tank, were better suited for retrieving disabled tanks in extremely hostile areas. In addition, the armored cab on the Pacific added considerable burden to the vehicle's powertrain. These revelations did not spell the end of the big Pacific's production. Rather, an unarmored, "soft-skin" version of the truck was developed under the designation M26A1. Mechanically identical to its predecessor, albeit 10 tons lighter, the off-road performance of the M26A1 was notably improved. Maintenance requirements, particularly on the front axle, were also considerably reduced. A total of 1,327 of the 2,294 trucks ordered were built between January 1943 and June 1945, when production ceased. By chance, rather than by design, production was almost evenly split between the two versions.

Though the chain drive of the truck gave it a somewhat antiquated appearance even when it was new, the Pacific soldiered on with the U.S. military for several years, being gradually replaced by the Mack M123 in the 1950s. Other countries, which had received the trucks through the Military Assistance Program, used them even longer. In the postwar era, military-surplus Pacifics served other U.S. government agencies, including the Atomic Energy Commission – which employed them to move heavy reactor components – and NASA, which used the Pacific to move the first stage of the mighty Saturn V rocket.



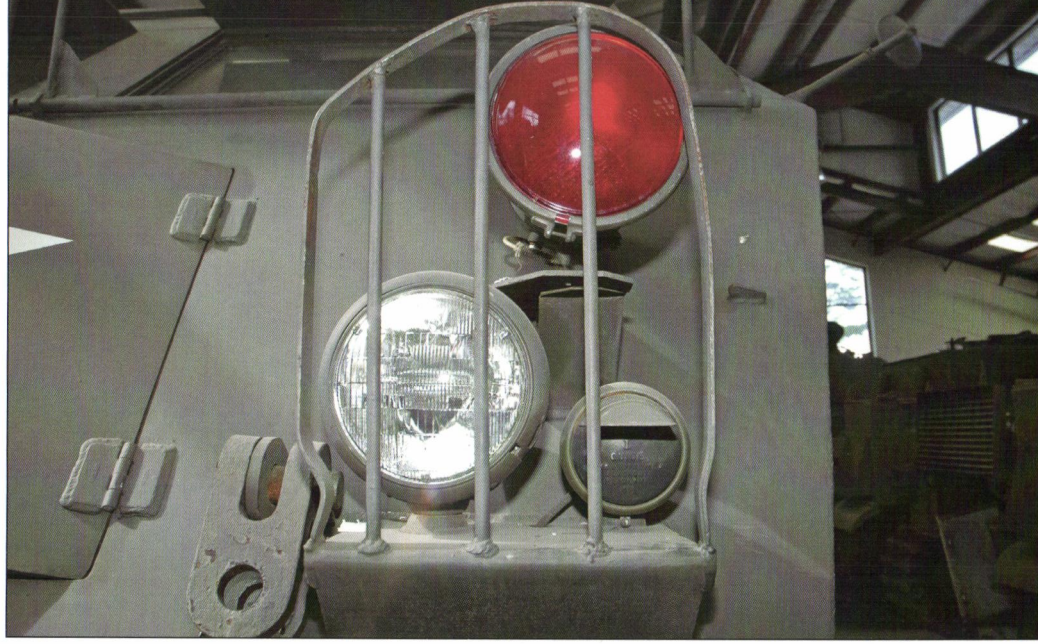
Developed by the Dart Motor Company of Kansas City, Missouri, the T3 was the prototype of the M25 tractor-trailer tank-recovery system. It comprised a T13 tractor and a Fruehauf T28 semi-trailer, an early version of the M15 semi-trailer. Two prototype vehicles were produced. This example was tested at Aberdeen Proving Ground in April 1942. (Patton Museum)

This example of the T3 featured a boxy armored cab with two side doors with hinged window shields that included vision slots. On the production M26 tractor, the front winch would be moved to under the front of the cab. On the semi-trailer is an M3 medium tank. Wheel guard racks were already a feature of the upper deck of the trailer. (Patton Museum)

M26 Tractor

An M26 tractor tows an M15A1 tank-transporting semi-trailer at a military vehicle show. The tractor bears markings of the 5th Armored Division. A yellow bridging symbol is above the right headlight. The ring-mounted .50-caliber machine gun and antenna mount are visible on top of the cab. (Warehouse Collection)

Pioneer tools were stored at the lower front of both sides of the M26 tractor cab. Shown here are an axe, pick-axe handle, and sledge hammer (a bracket for another sledge hammer is next to the side door). Details of the front and side window armor shields are visible, including the ridged vision slots. (Chris Hughes)



The combination siren/flashing light mounted on a welded bracket on the left side of the front of the cab appears to be a replacement for the original Federal Electric unit. Below it, a service headlight and blackout headlight are mounted on a separate bracket that also incorporates a large brush guard. (Chris Hughes)

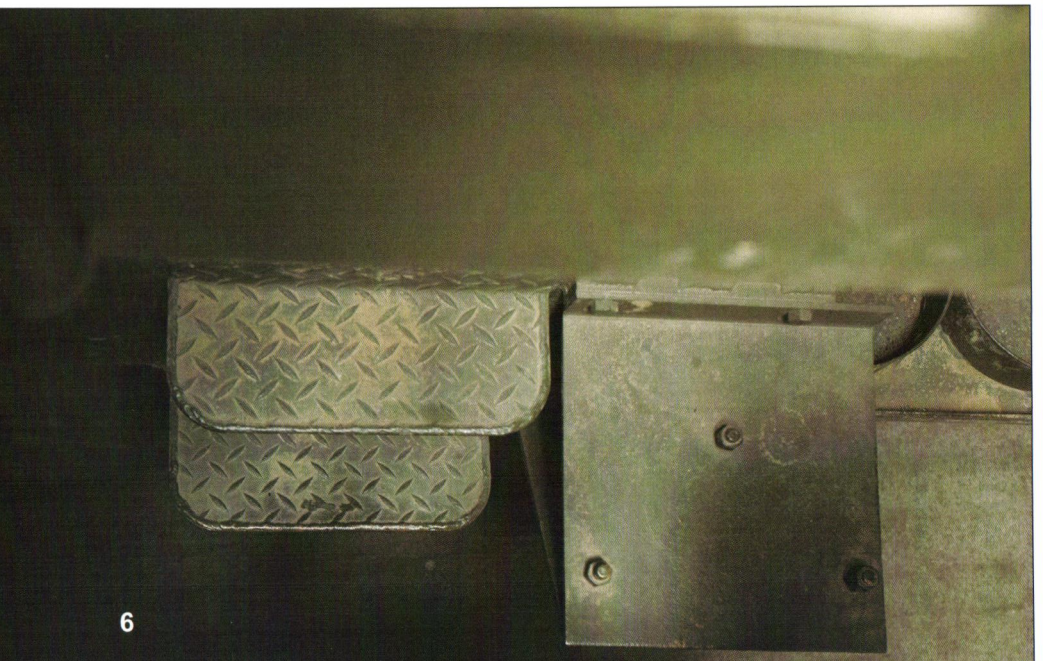
A side view of the left headlight array on another M26. On this example, a second service headlight is installed on the upper bracket instead of a light/siren. Electrical connections for the lights are visible through the side of the lower bracket.

On both sides of the cab toward the front are two clearance lights, which gave a point of reference to drivers of other vehicles when maneuvering around the M26. The upper unit is a service light and the lower a blackout light.

The front shutters are resting on pivoting hold-open supports. At the lower center is the outer left support's bracket. Welded to the gusset at the lower center is the bracket for the driver's rear-view mirror.

On some M26s, a steel rod was attached to the lower part of the pioneer rack, with the rear end of the rod attached to the front of the fender. The rod evidently served as a type of brush guard, keeping branches away from the tool rack and its straps.

A downward view of the staggered steps below the left side door of an M26 cab. These steps were fabricated from diamond-tread plate, with the lower step larger than the upper. The square plate is forms the top of a bracket for a 5-inch vise.



Two grab handles are welded to the body at the rear of each side door. The top handle of the left door shown here is not fabricated from bent steel rod, but rather from three neatly beveled and welded pieces of rod.

The open left side door exhibits the exterior operating handle at the lower corner, located there for ease of access. The "bracket" on the side of the lower door panel is actually a catch that engaged a hold-open latch mounted on the inside of the armored shutter at the top of the door. (Chris Hughes)

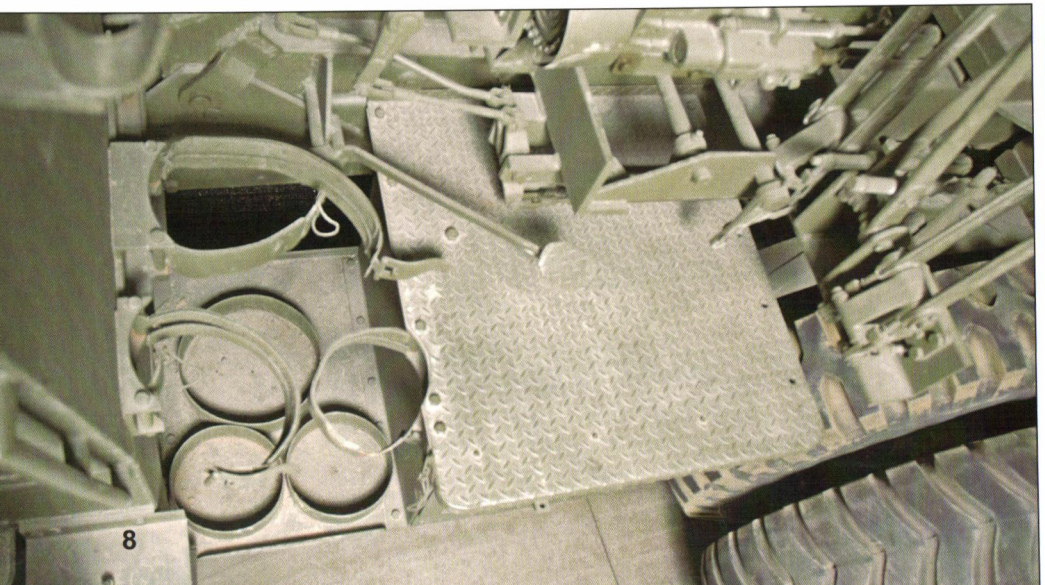
On the inside of the door, the operating handle is mounted farther up, with a link connecting it to the lower latch. A chart holder is tack-welded to the door. At the top is the shutter's sliding latch, and inside the vehicle is a stowage rack for .50-caliber ammunition boxes. (Chris Hughes)

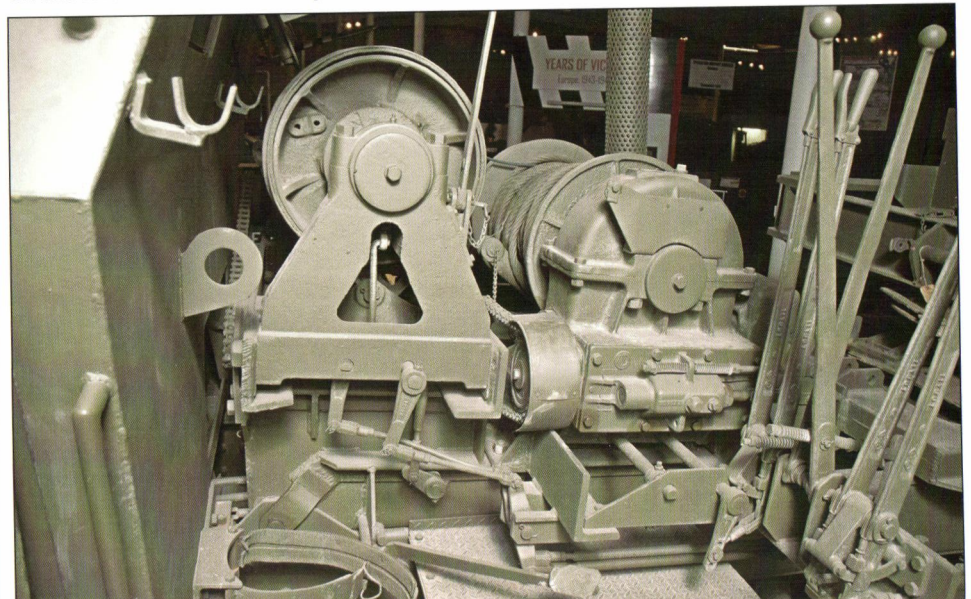
The rear of the tractor is packed with equipment. A vise is mounted on the bracket toward the rear of the cab. Strapped in mounts are oxygen and acetylene bottles for use with the welding kit. Two adjustable floodlights are atop the rear of the cab, and the tandem rear retrieval winches and their control levers are at the right. (Chris Hughes)

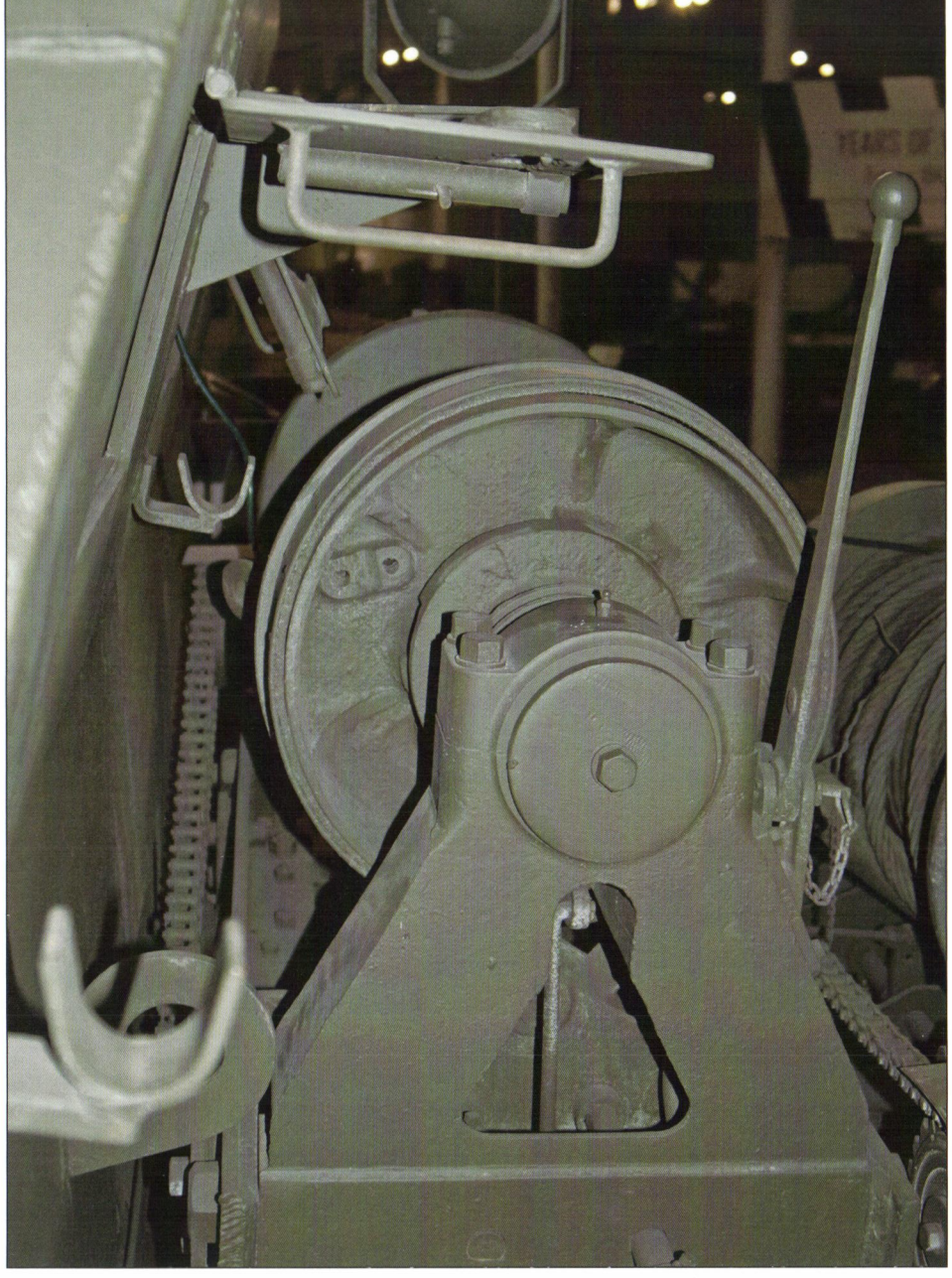
The winch operator's station includes a diamond-tread platform and a protective guard to the rear, with two braces. There are casting numbers on the sides of the winch operating levers. The exhaust stack with its perforated guard is to the far side of the winch operator's guard. (Chris Hughes)

The winch operator's area (right) and oxyacetylene bottle stowage brackets (left) are viewed from above, with the left rear of the cab to the far left and the vise bracket at the bottom left. The large circular bracket held the acetylene bottle, and the two smaller brackets held two oxygen bottles. The foot pedal at the center is the engine clutch control lever.

The tandem winch assembly comprises front (to the left in the photo) and rear Gar Wood 60-823B winches on a common, removable mount. These winches are arranged in opposite orientations, with the gear case of the front winch being on the right side of the unit (with reference to the front of the vehicle) and the brake case of the rear winch on the left. Each winch was provided with a 300-foot wire rope, ¾-inch in diameter.

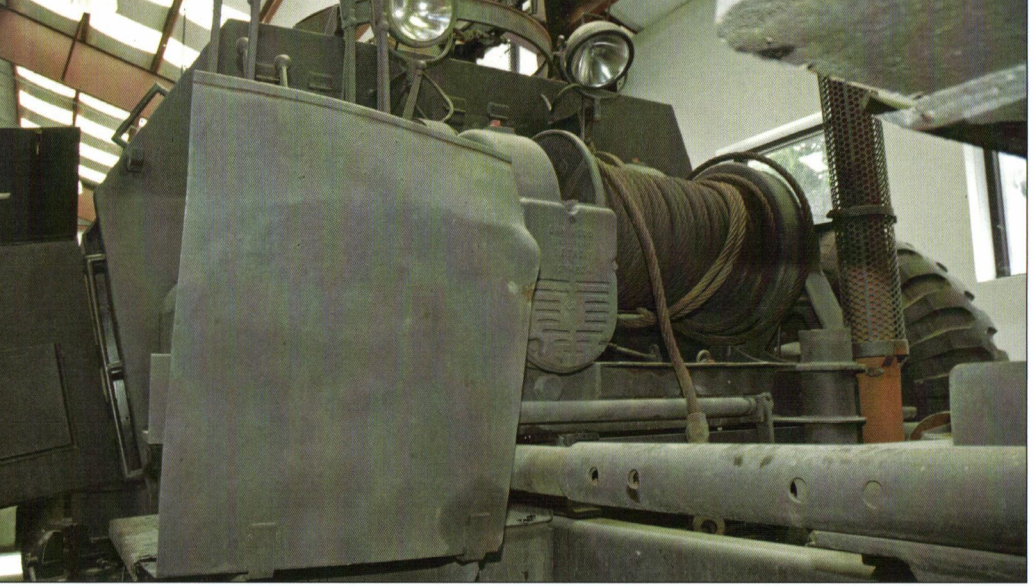






The operator's manual designated the tandem winches as "front" and "rear" with reference to the front and rear of the vehicle, and not with respect to the tandem winch operator's point of reference when facing his "work" toward the rear of the tractor. The winches, each with a 60,000-pound capacity, were propelled by the power takeoff, and to the right is the power takeoff winch control lever. Roller chains were used to drive the winches, two of which are visible at the left and lower right.

Next to the rear tandem winches are the tandem winch controls. For each winch there is a clutch lever, brake lever, and control lever, with the levers for the front winch arranged to the right (facing the rear) and the levers for the rear winch to the left. Not visible in this view are the platform at the bottom of the winch controls, where the winch operator stood when tending the controls, and the guard to the rear (out of the view to the right), which protected the winch operator should a cable snap.

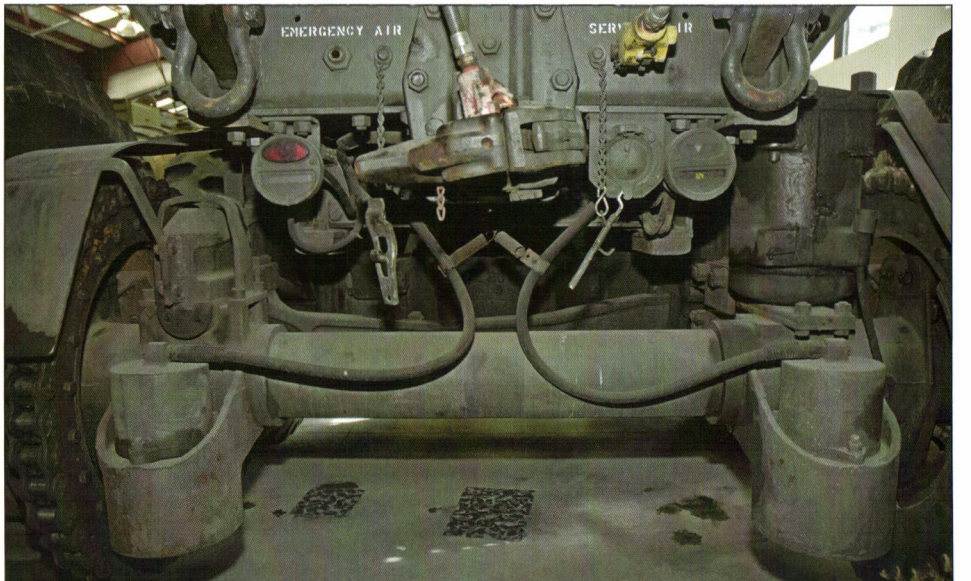


As viewed from the left rear of the M26 tractor looking toward the cab, the winch operator's guard and controls are to the left, with the rear winch drum to the center. The well-oxidized exhaust stack is to the right of the winch. Atop the chassis frame (lower right) are the stowed A-frame and one of its two telescoping supports, part of the vertical lifting device, used when it was necessary to lift as well as pull a vehicle or object with the tandem winches. (Chris Hughes)

The M26 tractor features a fifth wheel with a rated capacity of 55,000 pounds for attaching the tank-transporter semi-trailer. As seen from the left rear of the tractor, the fifth wheel is toward the upper left, with the underside of the front of the semi-trailer at the top. Bolted to the side of the rear of the tractor's frame is the left mounting bracket for the A-frame. (Chris Hughes)

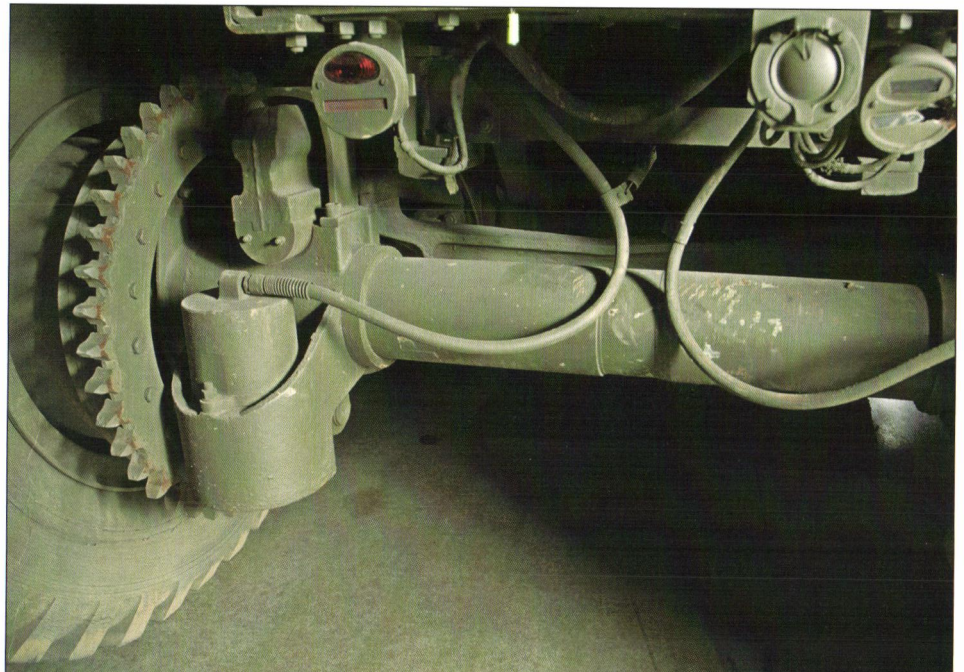
The eight rear wheels of the M26 are powered by drive chains, which in turn are propelled by sprockets (lower center) on each side of the jackshaft/differential assembly. Atop the side stabilizer beam are an oil tank and five grease cups, which kept the chain drive and elements of the suspension lubricated. (Chris Hughes)

At the bottom of this view of the rear of the tractor is the rear stationary carrier axle with brake cylinders on both its sides. Between the tail light assemblies is the towing pintle, rotated to the side. On both sides of the pintle are compressed air couplings and tow shackles. Attached to the air outlets with chains are dummy couplings. Dummy couplings are attached to the air couplings to protect them when not in use. At the top of the photo, attached to lugs welded to the rear bumper, are two U-shaped towing clevises. (Chris Hughes)



On the inside of each set of rear wheels, attached to the hub and brake drum, is a drive sprocket, which receives driving power through a roller chain linked to the jackshaft sprocket. Above the right brake cylinder is the housing for a stabilizer spring; there is one at diagonal corners of the rear-axle tandem unit. Above the chain is a chain guard. (Chris Hughes)

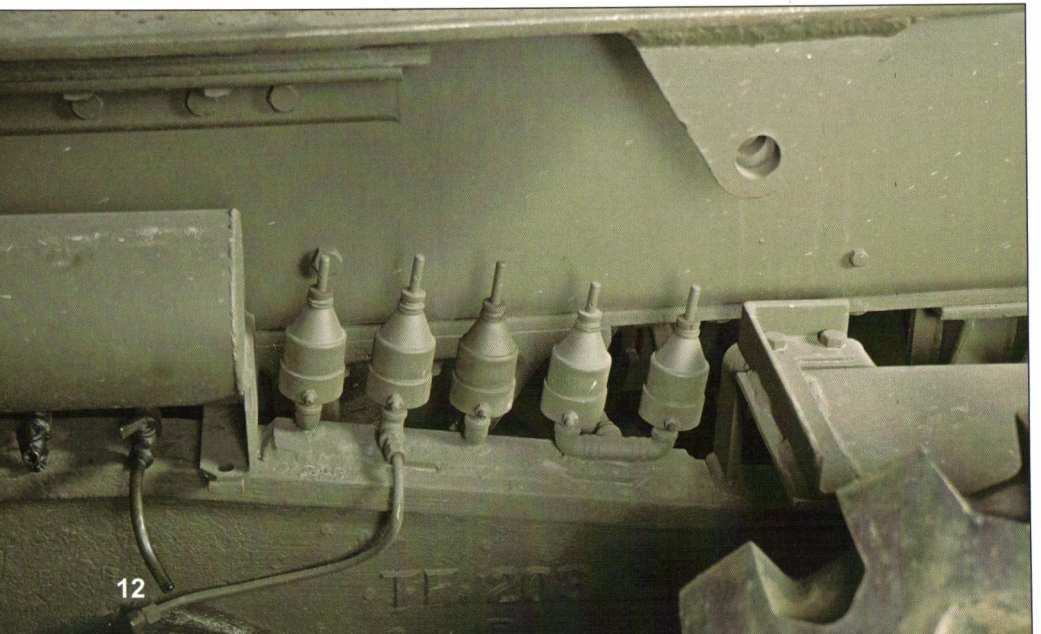
A left drive sprocket is shown with the chain removed.



M26 tires were combat type. To the left of the exhaust stack is a crane, which could be erected to assist in hoisting operations, such as lowering the large, heavy spare tire, or the tire guards stowed at the front of the semi-trailer. Normally, a trolley-type chain hoist would have been mounted on the T-bar at the top. (Warehouse Collection)

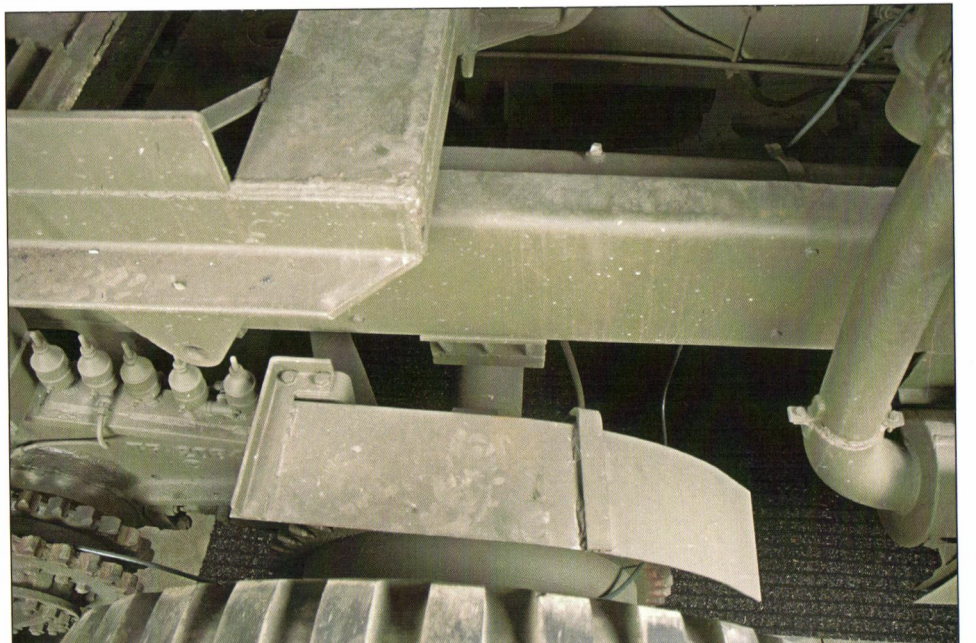
The fifth wheel and underside of the front end of the semi-trailer are viewed from the right side of the tractor. Below the fifth wheel is the A-frame in its lowered position, but its tubular support strut is not present. The rear of the strut was attached to the upper eyes on the A-frame when stowed, and to the lower eyes (right) when the frame was raised.

At the bottom of the chain oil tank are two shutoff valves with copper tubes, which dripped lubricant onto the roller chains and jackshaft sprockets during operation. Also atop the side stabilizer beam are five grease cups for lubricating the jackshaft trunnions and side thrust plates. Protruding from the tops of the grease cups are plungers.

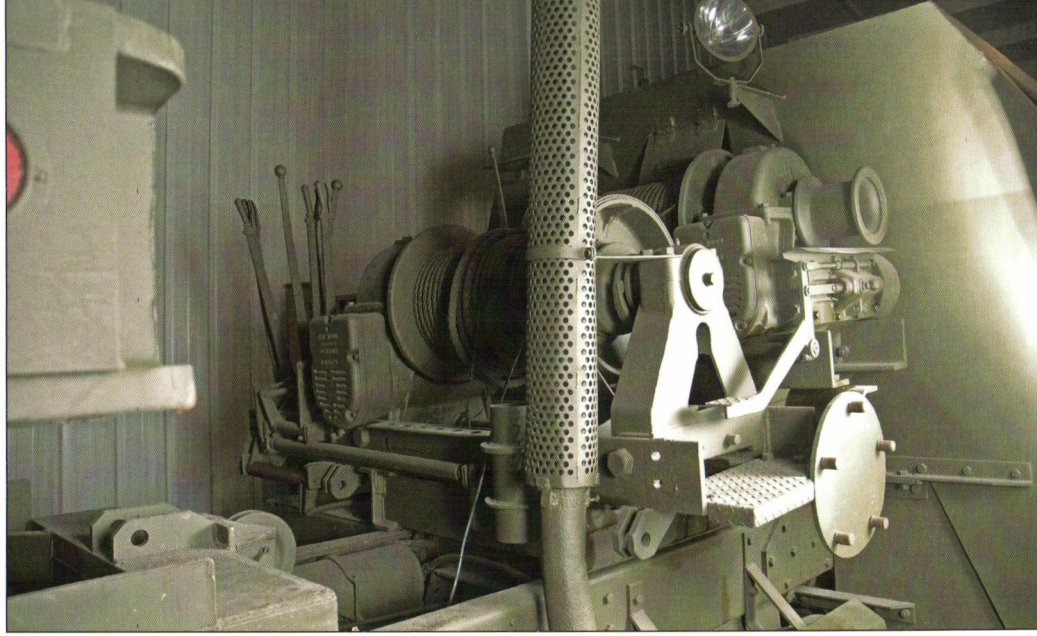


Since the drive chains on the right side of the tractor are not installed, the view here of the jackshaft drive sprockets is unimpeded. The chain oil tank with its top filler cap is above the sprockets. A casting number and foundry mark is on the side stabilizer beam to the right of the sprockets.

As viewed from the right side of the tractor, the inner forward tire of the rear tandem suspension is at the bottom, with the drive sprocket for that set of wheels just visible below the chain guard. The design of this chain guard is different from that of the rear chain guard on this vehicle. Visible to the right in the photograph is the lower part of the exhaust stack.

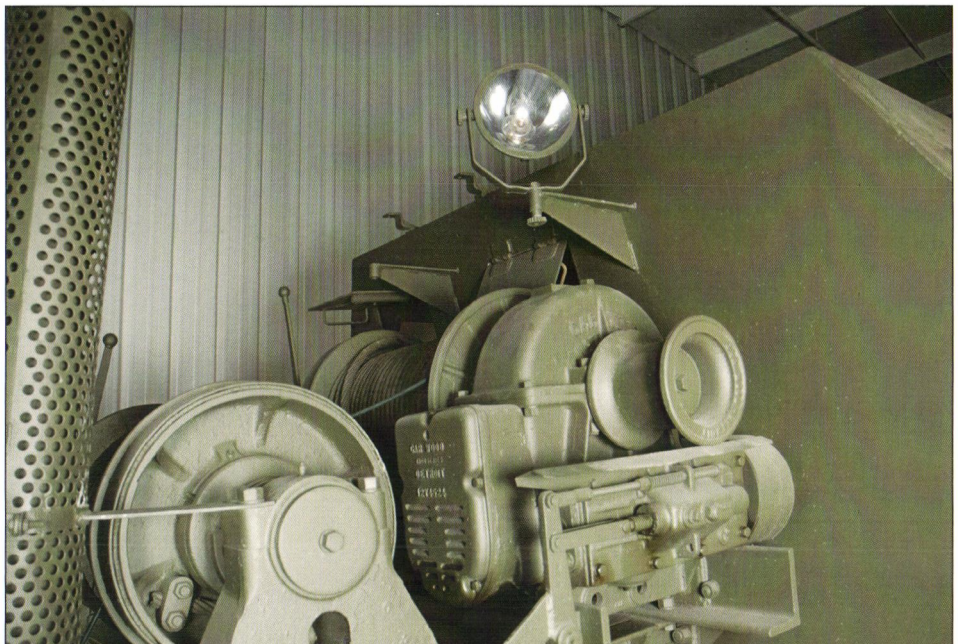


As viewed from the right rear of an M26 tractor, the front end of the support for the vertical lifting device is secured with a large pin to a bracket on the bottom of the winch frame, next to the exhaust stack. The perforations for locking pins in the telescoping support strut enabled the A-frame to be erected at several different angles. (Chris Hughes)



A view of the same area of a different M26, with the spare tire removed from its mount (lower right) and the support for the vertical lifting device and the winch operator's guard not installed. The vertical tube to the left of the exhaust stack is the crane mount. The rear window above the front winch drum is partly open.

A capstan head is fitted to the right side of the front tandem winch. At the center is the automatic brake housing, with its louvered cover. To the lower left is the exhaust stack bracket, which secures the exhaust guard to the rear tandem winch bearing cap.



A massive 14.00-24 spare tire is mounted just behind the cab, adjacent to the exhaust stack and attached to five threaded lugs on the spare-tire bracket with hex nuts. A davit is provided to lift the spare into place. (Chris Hughes)

Two stowage boxes for flares are mounted on common brackets to the right side of the rear of the cab. The angled design of the upper plate of the rear of the cab is apparent. To the right are the right side door and grab handle; an upper handle is not installed. (Chris Hughes)

The floodlights on the rear of the cab (the right one is shown) are fully adjustable, with locking thumbscrews. To the left of the partially-open rear window at the bottom is the top of the bracket for the left floodlight, which is not installed. The bent brackets atop the roof are designed to engage hold-open latches inside the two rear windows.

With the spare tire removed, the right sides of the tandem recovery winches are visible. Above the spare tire bracket is the operating foot lever for the front tandem winch. The right bearing plate for the winch assembly is bolted to the frame at the lower right.

Visible at the center, behind the rear of the cab (right) and below the chassis frame, are the exhaust (bottom) and, above it, a drive shaft with a universal joint. To the left is the muffler guard, with the upper part of its front bracket toward the top left.

Construction details of the spare-tire mount (left), hexagonal bearing plate for the winch assembly, and right rear of the cab are visible. Toward the right are the grab handle behind the side door and the upper step, with the rear of the fender to the far right.

The right steps for the side door, like the left steps, are constructed of diamond-tread plate, with one side bent upward at a right angle, forming a flange that is welded to the body. Below the lower door hinge is a door stop, buffered with a coil spring.

The window armor shield of the right side door is lowered, exposing the hold-open latch and inside of the vision slot. The latch is a sliding-bolt type.

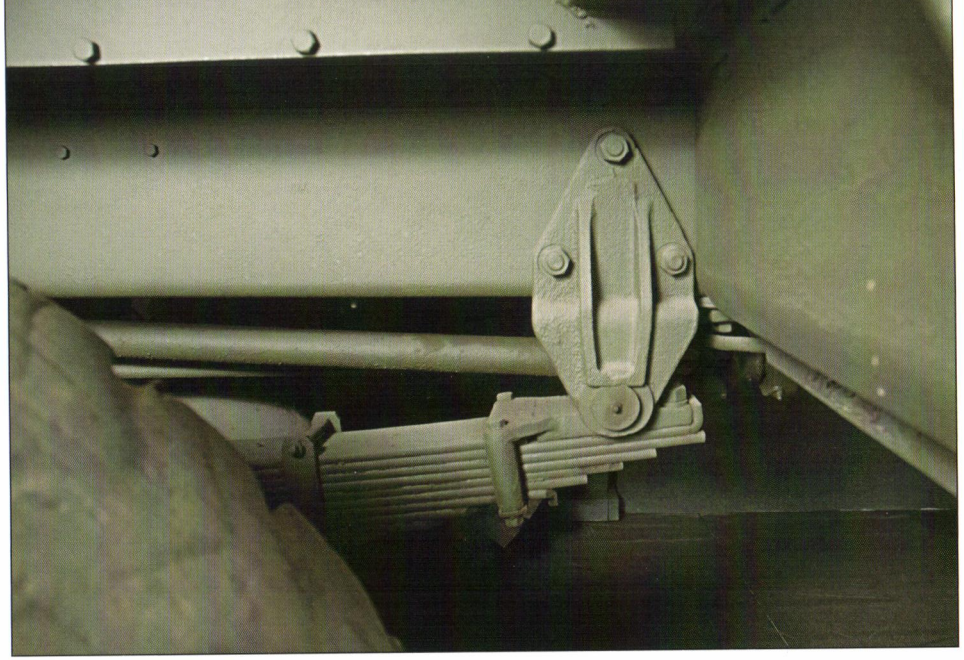
The right door stop is seen here close up from overhead. It features a coil-spring bumper mounted on a welded bracket.

The right door stop, facing forward, with the rear of the fender beyond. The observant reader may wonder how the door stop can work if it is below the bottom of the door, but the pronounced tilt of the side of the cab ensures that the door does indeed hit the door stop when open. At the top center is the bottom hinge of the crew door.

In the wheel well, between the rear of the front right tire and the fender, is the rear spring shackle and bracket and, mounted to the side of the chassis frame, the cam-and-lever-type shock absorber.

As viewed from over the right front tire facing to the rear of the wheel well, the fender-support brackets are visible.

The M26 mounted massive Goodrich or Goodyear 14.00-24 tires on combat rims. (This example is a Dunlop.) The tires were 20-ply and either the combat or desert type, with puncture-proof inner tubes. The wheels were manufactured by Budd.

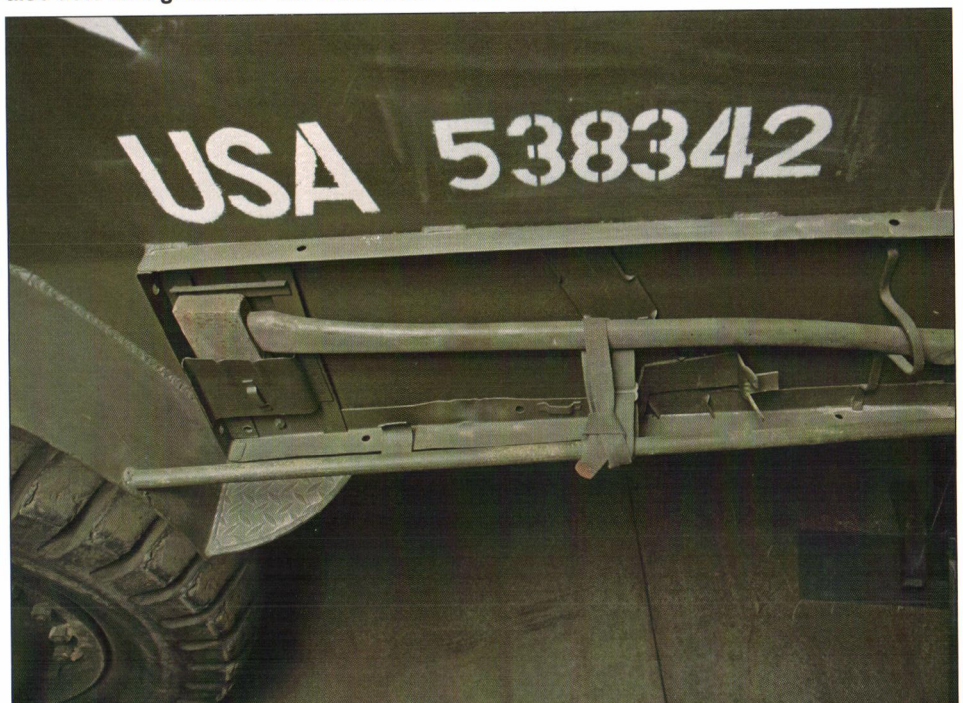


The front of the tire is seen at the lower left of this close-up view of the right front spring bracket. The bracket is secured in place with three screws that pass through the frame, topped with hex nuts.

The tool rack is tack-welded to the body of the vehicle. A small step with diamond tread also acts as a gusset for the lower front of the fender.

Typically, an axe, a shovel, a pick-axe head, and a pick handle would have been stowed in the right pioneer tool rack.

The right service headlight is viewed from the side. Visible within the mounting bracket are the electrical wires and connectors for the headlights. The tube at the bottom center is a mount for the draw bar; the hole holds a pin to secure the bar in place.



The service and blackout clearance lights on the right front side of the cab are seen up close. A part number and the words "SEMA APPROVED" are stamped on the cover (officially called the door) of the service light.

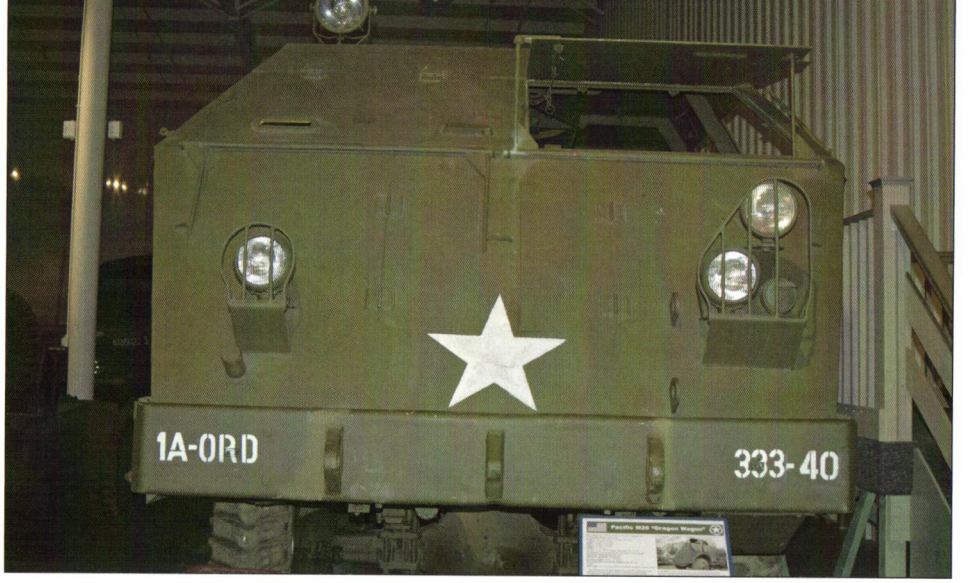
The two armored shutters on the front of the cab were normally left open during operations but were closed to protect the radiators in combat conditions. The commander remotely opened and closed the shutters using a lever to the left of his seat. The draw bar is stowed below the shutters. (Warehouse Collection)

This 9th Armored Division, 464th Ordnance Battalion M26 was attached to the 84th Infantry Division in December 1944. At that time it notably retrieved a German Panther G, dragging the cat – without tracks or the obligatory M15 trailer, through the streets of Geilenkirchen, Germany. In addition to the Vargas-style pinup on the cab – the crew has used white paint to emphasize the front corners of the cab and the lugs on the bumper.

This photograph of a Pacific M26 tractor from the rear at a reenactment demonstrates the vertical lifting device in the raised position, with the A-frame tilted forward. Using pins inserted in holes in the telescoping side supports, the A-frame could be set at several different angles. (John Blackman)

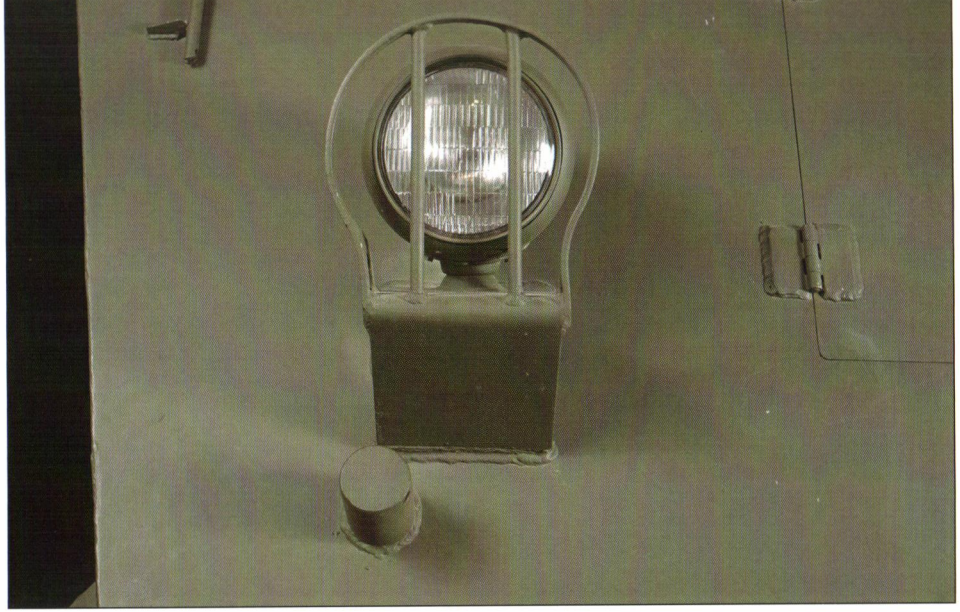
A beautifully restored and fully operable M26 tractor pulls an M4 medium tank loaded on a M15 trailer. The M26 tractor and the M15 trailer together comprised the M25 tank transporter. On the front center of the cab, the radiator doors are open, allowing more cool air to circulate to the radiator. These doors were normally shut during combat conditions. (John Blackman)

This restored M26 bearing the markings of the 4th Armored Division is flying distance-marker flags. These were used to help the driver gauge the positions of the front corners and sides of the vehicle when negotiating around objects in its path—a tricky proposition given the abruptly sloped front of the cab. (Simon Thomson)



The radiator shutters are closed on this M26. With the commander's front window armor shield closed, its support bracket is lying on the front of the cab. Inboard of the left headlight array and below the right service headlight are the three stowage brackets for the draw bar. Three tow lugs are welded to the bumper.

The headlight guard is made of a curved steel band with two vertical rods welded in the middle. To the left is the vehicle's bridge weight classification marking, with 70 representing the gross weight of the tractor and fully loaded trailer in tons and 24 indicating the weight of the tractor. The radiator shutters could be opened at several different angles, to regulate the flow of air into the compartment. (Chris Hughes)

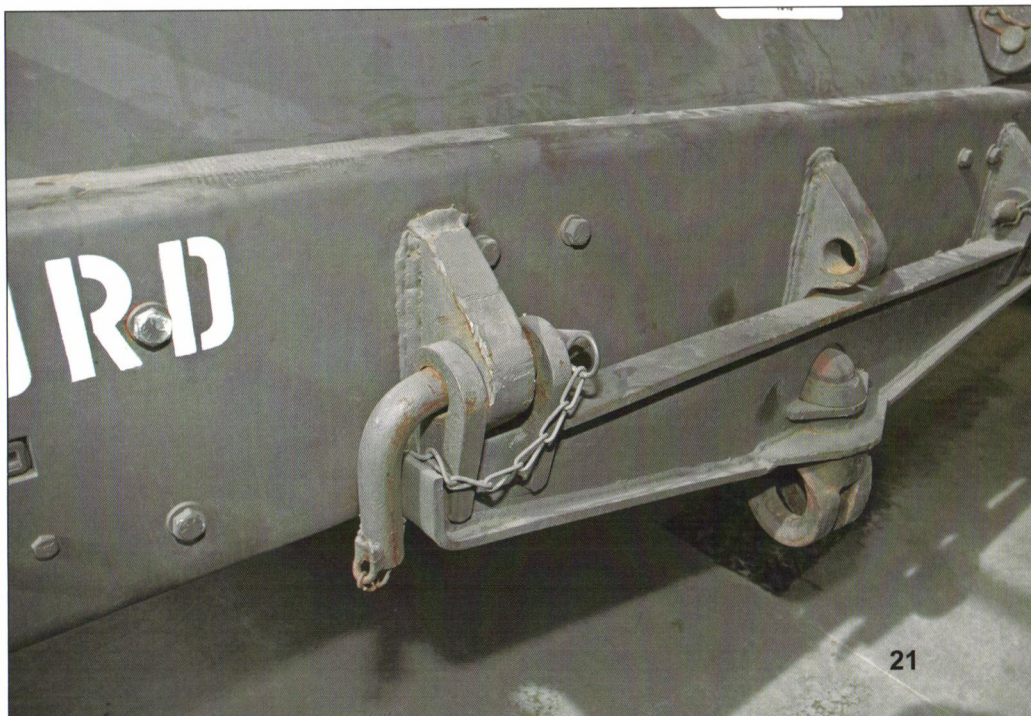


The service headlights (the right one is shown) feature a sealed-beam lamp unit with a clear lens. Below the headlight mount is the right stowage bracket for the draw bar. The hinges of the radiator shutters are welded to the body.

Arrayed on the bumper are three tow lugs. On the body of the cab above the farthest tow lug are the two brackets for securing the shackles of the draw bar when that implement is stowed.

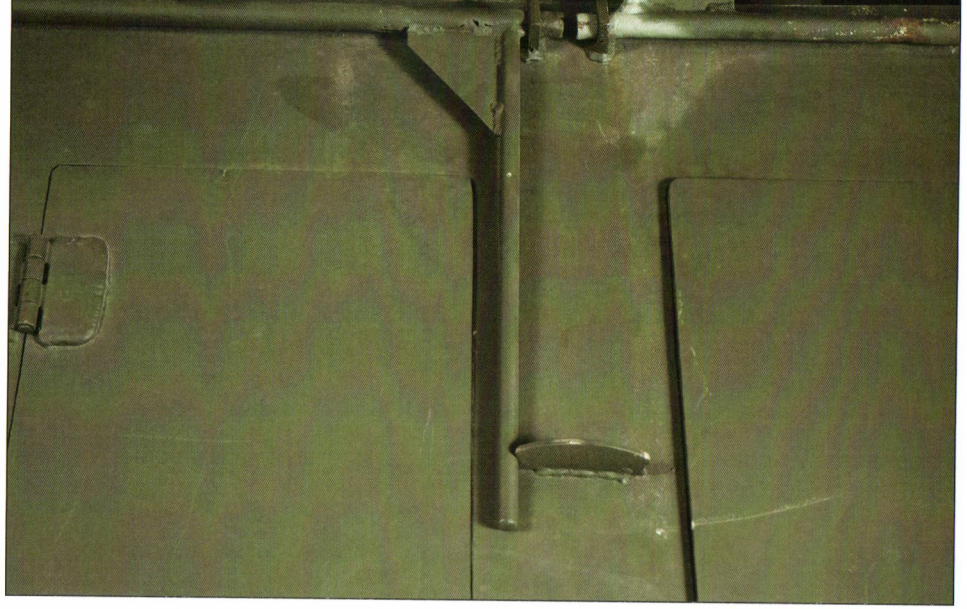
This overhead view of the top of a tow lug highlights the weld holding it to the front bumper. According to one M26 tractor crewman, the major weakness of the M26 was the tow lugs' tendency to shear off when the tractor was attempting to pull heavier tanks.

The whiffle tree is shown in one of its possible deployed positions, with its shackles pinned to the two outer tow lugs. The center tow lug is relieved at the bottom, to accommodate the whiffle tree. (Chris Hughes)



The legs of the pivoting support assemblies are inserted into sockets on the inner side of the front window armor shields. As seen in this view of the driver's shield, a latch secures the outboard leg to its socket, while the inboard leg simply rests in its socket. A bolt-type latch with a pull-chain secures the shield in place when closed.

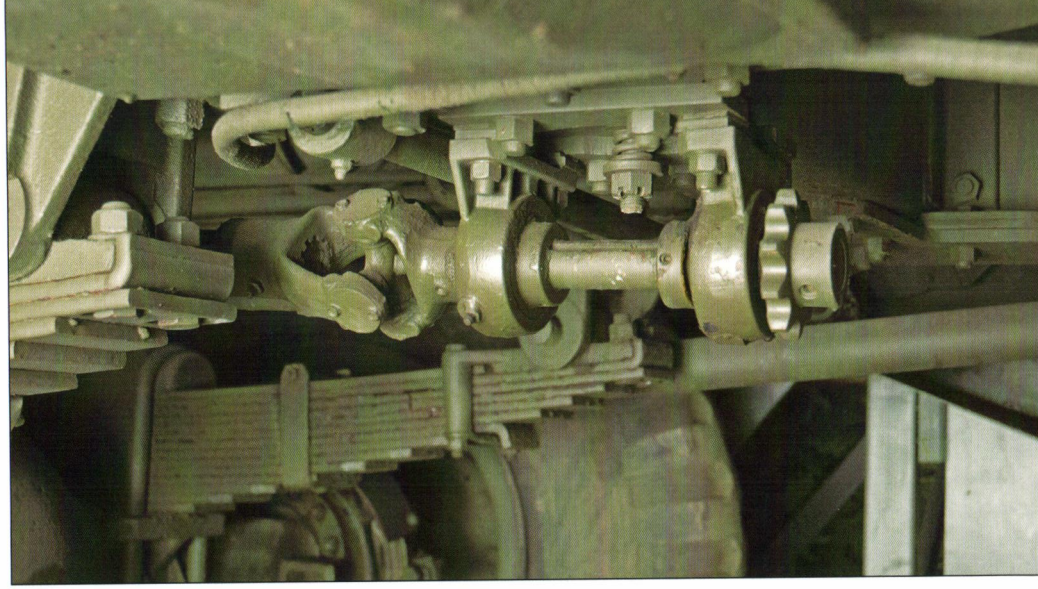
Seen here close up is the lowered outboard leg of the support for the commander's front window shield, snugged-up against its retainer (lower center). Gussets are welded to the spot where each leg meets the transverse rod of the support. These rods serve as hinge pins, allowing the support assemblies to swing up or down.



At the center front of the cab, the support for the commander's-side front window shield is lowered, while the driver's-side support is raised. Three small plates with flared shapes are welded on edge to the body of the cab to hold down the legs when lowered: shown at the lower center is the center plate.

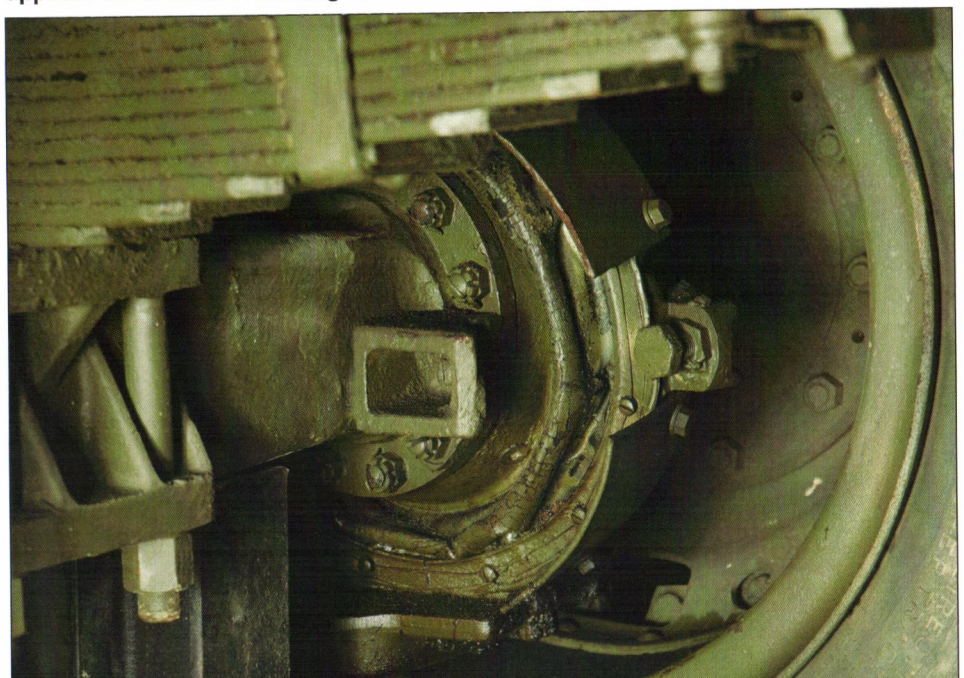
Much equipment is packed into the area under the front of the cab. To the left are the bottoms of the two air cleaners. To the right is the underside of the front winch, a Gar Wood 5M 713K, which is mounted to the chassis frame. Also visible is the Timken F 7900-A752 front axle, with a 7.69:1 gear ratio. (Chris Hughes)

Between the front springs of the M26 is the winch drive shaft, which is connected to a double bearing. At the front of the double bearing are the sprocket and roller chain that power the winch. At the center is the front connection for compressed air, with a dummy coupling attached. (Chris Hughes)



The winch drive shaft, universal joint, and double bearing are seen here up close. The roller chain is not installed on the sprocket to the front of the double bearing. The rod below the double bearing is the steering drag link.

The left front steering knuckle (center) and axle housing (left of center) are seen from under the front center of the cab. The front wheels of the M26 were not fitted with brakes, since the heavy mass of the cab could generate a nose-down effect if front brakes were applied. The hex nuts securing the U-bolt to the springs are at the lower left.



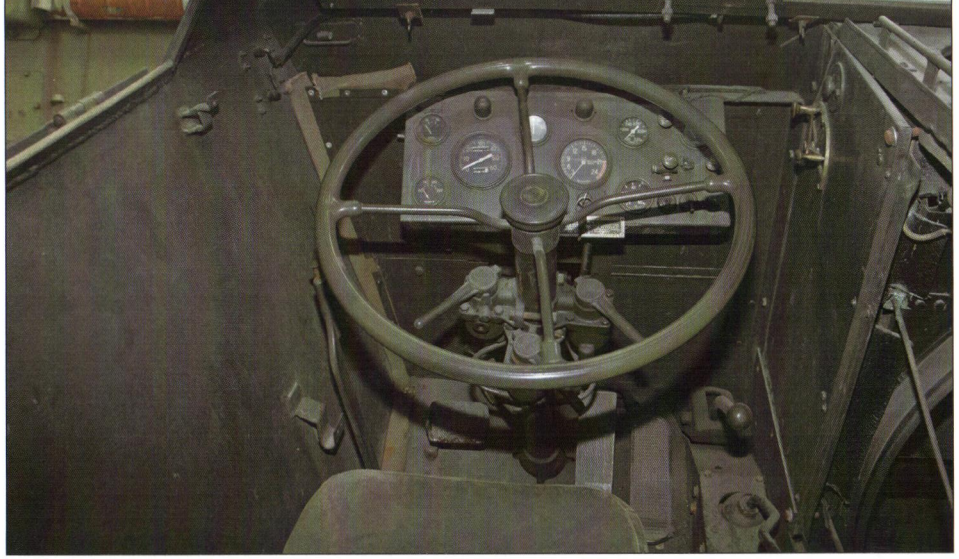
The rear of the Timken front axle is viewed from underneath the right rear of the cab. The tie rod runs below the axle. At the top are the armor plates that protect the underside of the right fuel tank. Two 50-gallon fuel tanks fabricated from armor plate flank the cab, one on each side. Coming up to the differential from the left is the propeller shaft, with a universal joint at its end where it meets the differential.

In a view from the front of the underside of the rear tandem suspension, the rear drive shaft is connected to the drive-shaft brake drum, the circular object with oval cutouts to the front of the rear differential. Protruding from each side of the front stationary (or carrier) axle are air brake cylinders, with brake hoses visible above them. Next to the wheel at right is the front stabilizer spring housing.

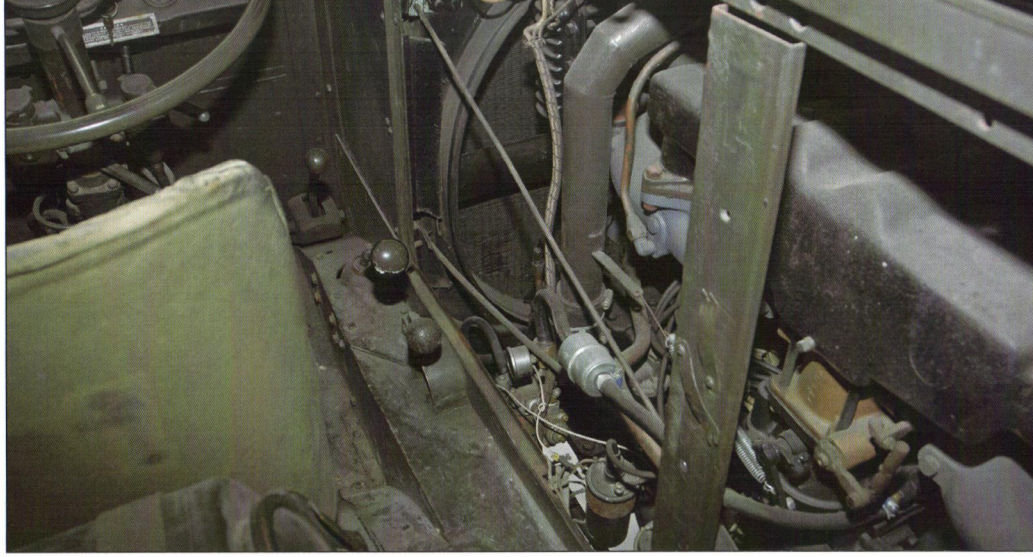
Looking toward the front of the cab roof from the M49C ring mount (note the .50-caliber ammunition box holder at the bottom), the straps secured to footman loops were for securing a camouflage net. The travel lock for the M2HB .50-caliber machine gun and the combination blinker and spotlight are to the right of the roof, and an antenna mount is to the front left. (Chris Hughes)

The rear of the M26 tractor, as seen from the rear of the cab roof. The two floodlights are at the bottom, the tandem winch drums and wire ropes are at the center, and the exhaust stack and guard (left) and the winch controls (right) are on either side of the rear tandem winch. At the top is the front of a hitched semi-trailer. (Chris Hughes)

Inside the cab, the front windshields and ceiling details are in view. The clear windshields were normally removed and stored in the cab when the armored window shields were lowered during combat conditions. At the bottom is the engine compartment cover. The white object to the upper right is the interior control for the spotlight. (Chris Hughes)



The driver's compartment is in the left front of the cab, squeezed in next to the engine compartment (right). To the left are clamps and brackets for storing the windshield when removed from the window. Control levers for the tractor and semi-trailer air brakes are on the steering column. On the floor to the right of the seat are, front to rear, the auxiliary transmission shift lever, main transmission shift lever, and front axle declutch lever. (Chris Hughes)



The left side panel of the engine compartment housing is removed, exposing the Hall-Scott Model 440 engine, a six-cylinder inline, 1,090 cubic-inch-displacement, water-cooled power plant. The black structure toward the top of the engine is the heater valve housing, with the carburetor and generator visible below it. The radiator is at the front of the compartment. (Chris Hughes)

To the rear of the driver's seat is a crew seat. A 5-gallon water container is stowed between the seats. To the left is a rack containing .50-caliber ammunition boxes, secured with webbing straps. (Chris Hughes)

On the ceiling of the cab to the front of the circular hatch for the machine gun ring mount is a quick-release holder for another fire extinguisher. The heavy-duty, welded framework of the cab ceiling is displayed. Barely visible at the lower right is the top of the engine compartment.

Above the ammunition rack is a decontamination apparatus, to the front (right) of which is a closed armored window shield. Above the shield are clips for stowing a canteen and flashlight. The left side door is open at the left of the photo. (Chris Hughes)

On the rear wall of the cab between the two rear windows is a hand grenade box; there was another such box on the other side of the window to the left. There were also two fire extinguishers in brackets on the rear wall; one is shown here. (Chris Hughes)

The cab tool box is seen from the right rear of the cab. A five-gallon liquid container holder is mounted on top of the tool box lid. Hold-down clamps for the Blackhawk heavy tool set case flank the case's rack. At the top left is the machine gunner's seat.

The right rear of the cab is similar in layout to the left rear, with a decontaminating apparatus to the top left, an ammunition rack to the lower left, the side door at the center (note the vision slit), and a fire extinguisher, seat back, canteen, and liquid container to the right. (Chris Hughes)

To the front of the ammunition rack in the right side of the cab are a side-facing crew seat, five-gallon water container, and the commander's seat (left). Partly hidden on top of the engine compartment at lower left is a bracket for storing the M2HB .50-caliber machine gun. (Chris Hughes)

In addition to the .50-caliber machine gun, blankets were stowed on top of the engine compartment. The commander's interior controls for the roof-mounted spotlight are toward the upper left. The spotlight could also be detached from its mount and fitted with a grip for hand-held use. (Chris Hughes)

The commander's station in the right front of the cab includes a desk below the front window. To the lower left of the desk is the operating lever for the radiator shutters on the front of the cab. A first aid kit, flashlight bracket, and canteen are also at the front of the compartment. (Chris Hughes)

A restored M26 tractor mounts a rise in a dirt road. In World War II service, the vertical lifting device was frequently left in its erected position when the M15 trailer was not being towed behind the tractor. Visible on top of the horizontal beam at the top of the A-frame is a sheave. A snatch block could also be hung from a shackle at the bottom of the sheave's bracket. (John Blackman)

M26 tractors were frequently used without the M15 trailers to recover disabled heavy vehicles. Using a tow bar, a restored M26 tractor is pulling an M36 tank destroyer over rough ground. The vertical lifting device has been adjusted to 18 degrees aft of vertical: a useful angle when lifting objects close to the rear of the tractor. The crane and the chain hoist are installed on the tractor to the opposite side of the winch operator's platform. (John Blackman)

M26A1 Tractor

Developed in 1944, the M26A1 tractor was basically an M26 with a sheet-metal instead of armored cab, with provisions for a canvas top instead of a hard roof. Because of the lack of a roof, the searchlight was moved to the center column of the windshield. The M49C ring mount for a machine gun was retained, however. Underneath the cab is the steering gear housing, on the near side of the front winch drum. Other changes to the cab of the M26A1 included enclosed pioneer tool racks with top-hinged doors, inset steps for the side doors, and hand rails of bent steel rods on both sides of the doors. For added strength, two horizontal ribs were incorporated into the sides of the body. (John Adams-Graf)

The service (top) and blackout clearance lights and the bracket for the rear-view mirror remained in the same locations as on the M26 tractor.

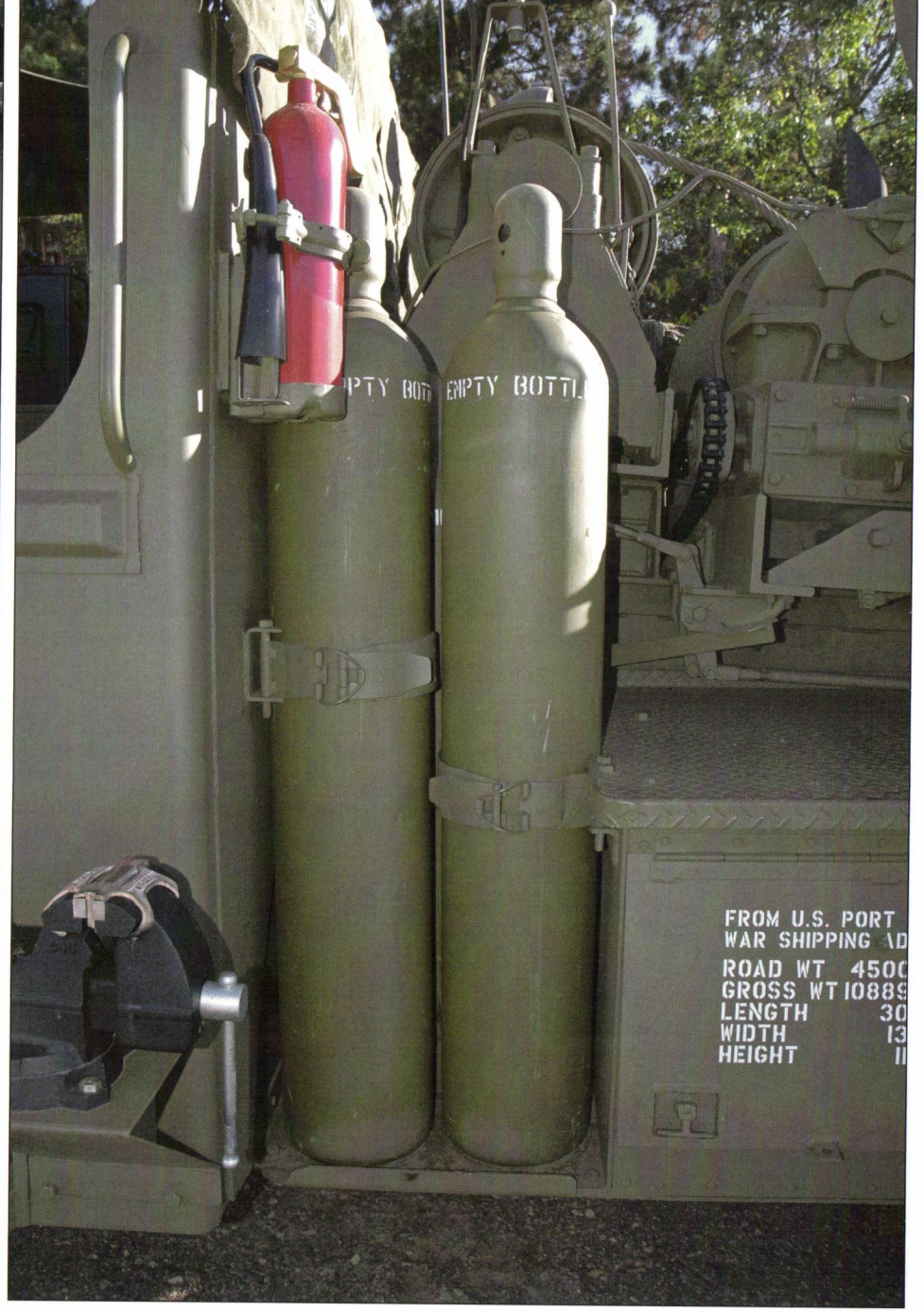
Stowed in the rack is a full complement of pioneer tools, including a shovel, a pick-axe handle and head, and an axe. Two simple turn-latches are provided to secure the tool rack door.

Elements of the front left suspension of the M26A1 are viewed from the front. At the lower left is the drag link, connected to the arm of the steering knuckle. To the upper left of the tire are the shock absorber and link and spring shackle and bracket.

Bracing is present in the rear of the wheel well. The revised shape of the vise bracket is also evident.

The inset steps have diamond-tread surfaces. When not in use, the five-inch vise was stowed in the tool box to the rear of the oxygen and acetylene bottles.

Stenciled on the door of this tool box are weight and dimension data. Equipment stored in the box included a spare drive chain, chain-repair tools, tire inflating hose, and hydraulic jack.

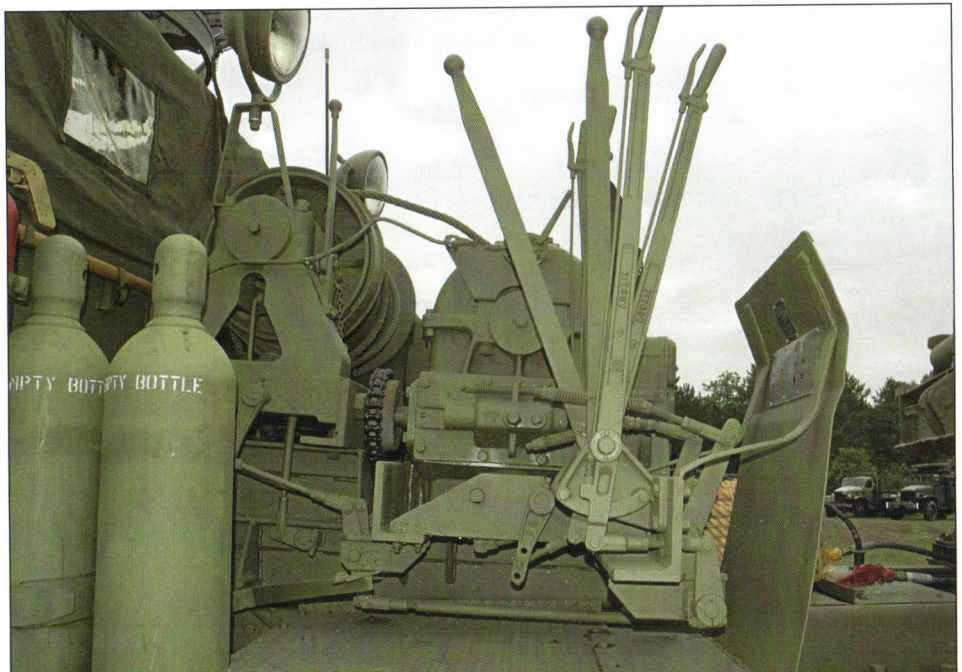


The oxygen bottles are secured in place with quick-release metal clamps, as is the acetylene bottle, hidden from view. A fire extinguisher is stored on a bracket on the rear of the cab.

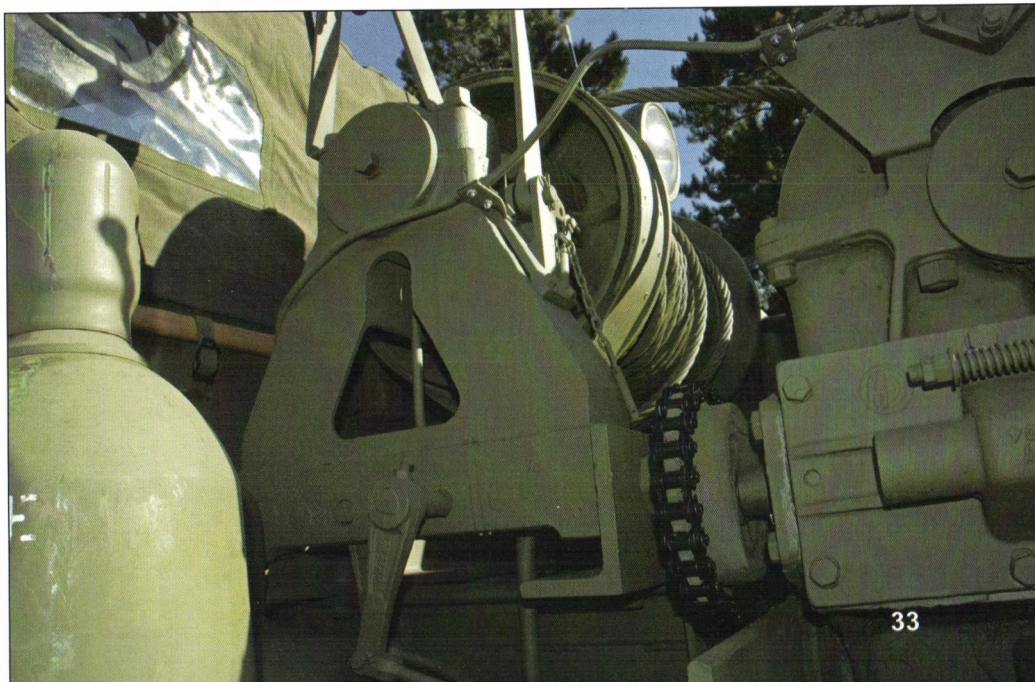
A canvas door and top are installed on this M26A1. To the right are the winch controls; the levers with the ball-shaped knobs are winch gearshift levers, while those with locking grips control the winch drum brakes and jaw clutches.

While the rear floodlights of the M26 were mounted on the rear of the cab, on the M26A1 they were mounted on brackets secured to the trunnion cap on each side of the front tandem winch.

The layouts of the tandem winches, winch operator's platform, and winch controls and linkages of the M26A1 and M26 are essentially identical. On the winch operator's guard are a caution plate and a placard with instructions for operating the winch controls.



To the right of center is the roller chain that powers the rear tandem winch. Cast onto the tandem winch shifter cover at the lower right are the part number and the "GW" logo of Gar Wood. To the upper left is the left rear window of the cab.



The engine clutch control pedal (center) toward the rear of the winch operator's platform is seen up close. This pedal was used to disengage the engine clutch when shifting the power takeoff winch control lever located on the rear tandem winch, out of view above the pedal.

The long lever at the upper left controls the power takeoff for the rear tandem winches. On the upper side of the gear case of the rear tandem winch (center) is the throttle control lever, with which the winch operator could regulate the engine power from his station. The throttle line passes alongside both winches.

Seen from above are the tops of the oxygen and acetylene bottles at the left rear of the cab. The two outer bottles (right) are for oxygen, and the shorter, wider bottle on the inboard side is acetylene. The engine clutch control pedal is visible next to the rear oxygen bottle.

Facing across the tractor to the rear of the winch operator's guard (left) is the exhaust stack. Lying next to the coil of rope are two air hoses with yellow and red dummy couplers attached to the couplings. When attached to the corresponding couplings on the front of the semi-trailer, the hoses supply air to its brakes.

The winch operator's guard is at the left in this view, looking toward the front of the vehicle, of the tandem winches. Gar Wood's "GW" foundry mark is to the left of the automatic brake case of the rear tandem winch, and the manufacturer's name and the part number are cast on the front of the brake case. At the top is the M49C ring mount.

When a semi-trailer is not coupled to the tractor's fifth wheel, the greater mass of the rear of the lower coupler assembly forces it to lie down at an angle, as illustrated on this M26A1 prior to restoration. The fifth wheel assembly used on the tractor was the Fruehauf Model F.

Viewed from the left side of the M26A1, the tractor's fifth-wheel coupling comprises the fifth-wheel lower coupler assembly (toward top, supporting the semi-trailer) and the coupler mounting bracket, which is bolted to the chassis frame. At the top of the bracket is a trunnion bearing, allowing the fifth wheel to vary in angle according to the aspect of the tractor and the towed vehicle.

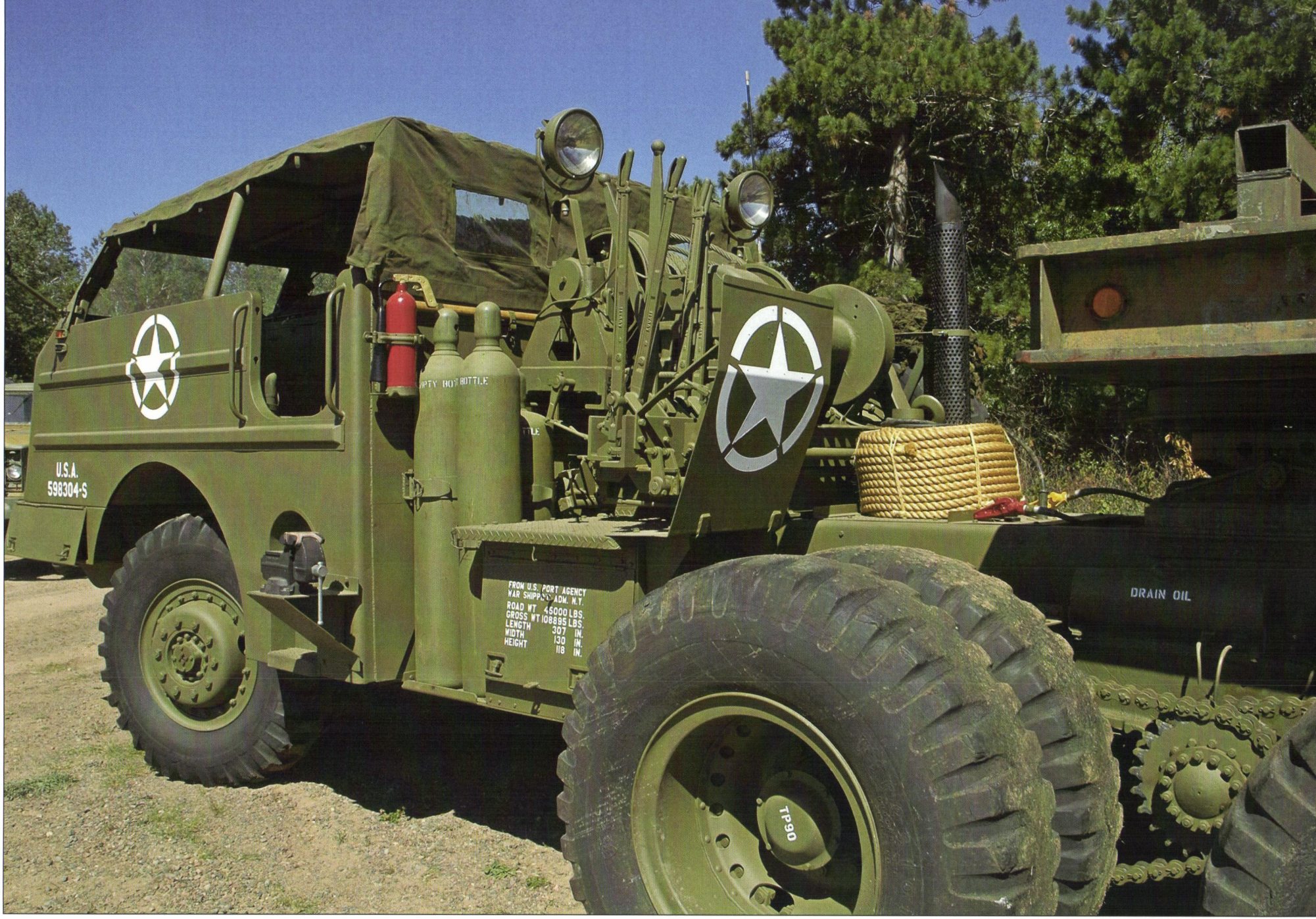
Near the rear of the M26A1's chassis frame are two skids. They are sloped to meet the rear edge of the lower fifth-wheel coupler in its downward angle prior to coupling the semi-trailer. At the lower left are the grease cups on the left stabilizer beam.

The two grease cups to the left serve to lubricate the jack shaft trunnion. The center cup lubricates the side thrust plate, and the two right cups lubricate the jackshaft trunnion cap. At the bottoms of the cups are grease fittings for filling the cups; at the top of each cup is a plunger, which squeezes lubricant out of the cup to its destination. The left chain oil tank is to the left.

This M26A1 was assigned to the Company B, 704th Ordnance Battalion in Germany in 1954. The crew has added yellow warning stripes to the vehicle and red light-equipped sirens to both sides of the cab for the sake of safety on narrow German roads.

The left outer jackshaft sprocket is seen here up close. Although the outer sprocket is visible, the inner sprocket, which propels the drive chain for the rear wheel, is hidden. There are wear patterns on the sprocket teeth from contact with the chain.

Elements of the left side of a restored M26A1 tractor are displayed. To the left are the acetylene and oxygen tanks. Next to them, and below the winch operator's platform, is a tool box, which typically contained a 20-ton hydraulic jack, tire inflation hose, spare drive chain and chain-repair tools, and air-brake hose. Also in view is the fifth wheel assembly on top of the frame of the tractor. (John Blackman)



With its soft top, lack of armor, and streamlined shape, the M26A1's cab presented a somewhat less warlike appearance than the M26. The jackshaft sprocket appears at the lower right between the two tires. (John Adams-Graf)

The rear of an M26A1 is displayed without a semi-trailer hitched. The lower fifth-wheel coupler is lying with its rear side down, demonstrating the smooth transition from the two skids on either side of the rear of the chassis frame to the coupler. On either side of the towing pintle are air couplings and hoses for powering the semi-trailer's brakes. Hanging from the retainer chains are dummy couplings. (John Adams-Graf)

Below the yellow hose coupling on the right is an electrical outlet with a circular flip-up cover for powering the trailer lights. On both sides of the rear of the chassis frame are brackets for the A-frame of the vertical lifting device, which is not installed. To the right is one of two stabilizer spring housings. The tops are removable, allowing access to the two concentric coil springs within each housing.

The left mounting bracket for the A-frame (center) is seen up close, with the skids to the rear of the fifth wheel to the right. The A-frame and its supports are not installed on this vehicle. At the lower right, a tow hook is pinned to the left towing eye, and the left drive chains are visible at the lower left.

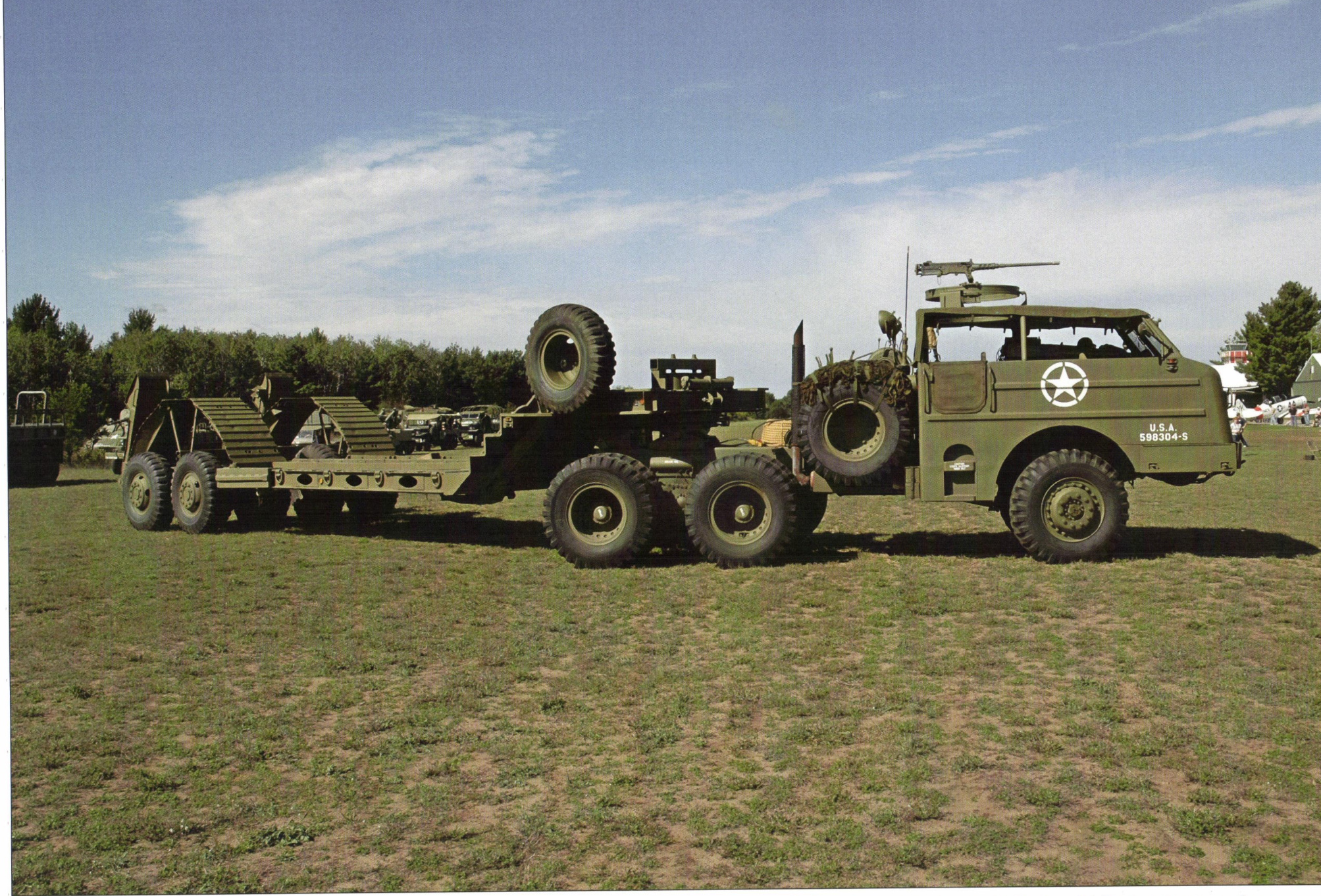
The stationary axle at the rear of the M26A1 tractor's rear suspension is similar to that on the M26 tractor, and the same chain-and-sprocket drive arrangement was used. Above the air brake cylinders on each stationary axle are inverted-U-shaped brackets (top center) that secure the stationary axles to the rear suspension beams. The heavy-duty roller chain is wrapped around the drive sprocket attached to the left rear dual wheels. The small, round object next to the front of the air brake cylinder is the slack adjuster.

On the right rear of the rear-tandem suspension assembly, the stabilizer spring housing is directly above the brake cylinder. The other stabilizer spring assembly is on the left front of the rear tandem suspension.

Viewing the fifth wheel from the right rear, the king pin of the semi-trailer is visible, seated in the lower coupler assembly. A spring-loaded locking jaw in the lower coupler assembly holds the king pin in place. Grease is applied to the lower coupler and skids to help slide the semi-trailer onto and off the tractor coupling.

The bottom of the stabilizer spring (top left) at the right rear of the tractor sits on the end of a leaf spring that is mounted on the side of the stabilizer beam. Also visible are details of the sprocket, roller chain, and air brake and hose.

The exhaust stack has its perforated guard in place, and a spare tire is mounted on its bracket to the right of the tandem rear winches. Strapped to the top of the tire is camouflage netting, which on the M26 was stowed on the hard roof.



An M26A1 tractor tows an M15A2 semi-trailer, immediately identifiable by the tapered fairing in front of the wheels, a feature introduced with that model. Design carryovers from the M15A1 trailer include the oval cutouts in the side girders and the hinged wheel guards. When lowered, the wheel guards formed a bridge over the rear tires: a necessity to protect them from the tracks of the larger, heavier tanks that the M15A1 and M15A2 were designed to transport.

The outer right front tire of the rear tandem suspension bears the markings "Mohawk Chief" of the Mohawk Rubber Company, Akron, Ohio. The M26A1, like the M26, had an air coupling on the rear side of the tool box on the left side of the chassis, and a tire inflation hose would be attached to that coupling to inflate the tires.

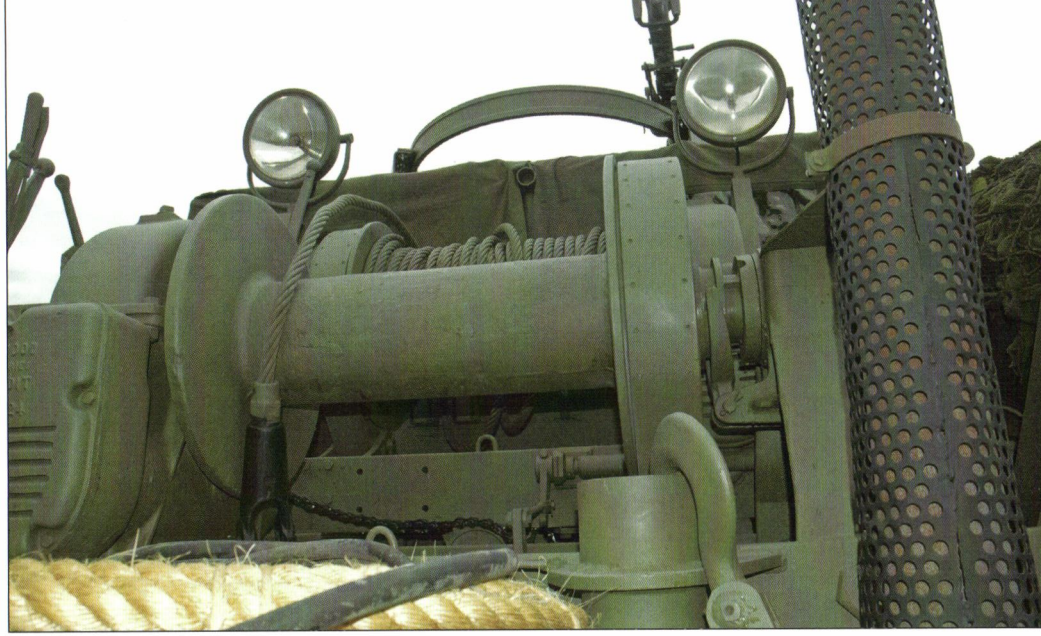
The lubrication cups on the right side of the rear tandem suspension are arranged in reverse of those on the left side, i.e., to the front of the drive-chain oil tank. The valves and tubes that drip oil from the tank onto the jackshaft sprockets and drive chains are visible, as is the bracket and trunnion for the fifth-wheel lower coupling at top.

Repair and assembly of the drive chains required a special tool that was carried in the tool box on the left side of the chassis. Proper tensioning of the chains was accomplished by adjusting the radius rods.

On the front right side of this M15A2 semi-trailer next to the amber reflector are a caution plate, serial number plate, and nomenclature/data plate. On the front of the lower fifth-wheel coupling is the handle that locks and releases the jaws of the coupling.

Seen here from the right side of the tractor facing toward the rear, the underside of the top disk has trunnion bearings oriented front to back, while the lower element has trunnions oriented side to side. This allows for the flexing of the coupling on two axes.

A block is hooked onto the crane mount next to the exhaust stack. When not in use, the crane and chain hoist were stowed in the well of the semi-trailer.



With the wire rope not installed, the shape of the inner surfaces of the winch drum is apparent. There is a vertical seam running up the rear of the exhaust stack guard.

On the tray next to the spare tire of the M26A1 tractor is a set of tire tongs. The tongs were attached to the chain hoist and clamped to the tire when it was raised onto or lowered from the tire bracket.

The webbing straps that hold the camouflage netting on top of the spare tire have metal tabs at the ends; three of the hex bolts that hold the wheel to the spare tire bracket also pass through holes in the tabs, securing the straps.

On the rear of the cab below the tire is a rack for two flare boxes. By contrast, on the M26 these two boxes were mounted on two brackets higher up on the back of the cab.

On the M26A1, the radio antenna was moved to a mount at the right rear of the cab. The mount was on the front right of the roof of the cab on the M26.

The Mohawk Chief 14.00-24 front tire on this M26A1 features a non-directional MS (mud and snow) tread. Ten lug nuts secure the Budd wheel to the studs of the hub, at the center of which is a lubrication fitting.

At the center of this look into the rear of the front right wheel well is the universal joint of the front drive shaft. In the shadows to the right of the universal is the front differential.

The right side of the front axle and differential, the Timken F 7900-A752, is displayed. The banjo-type differential exhibits considerable oil leakage. At the upper left is the front of the armored enclosure of the right fuel tank.

Design features of the right shock absorber and link and the U-bolts securing the elliptical leaf springs to the front axle are exhibited. Passing directly below the bottom of the chassis frame is the drive shaft for the front winch; below it is the transmission shift rod.

At the rear of the front right wheel well, the bracket at left secures the fender to the armor plate at the front of the fuel tank. At the center is the rear spring shackle bracket and shackle.

The top of the right steering knuckle is seen from above. The tie rod is to the left. The M26A1, like the M26, had a hydraulic power steering system, activated whenever the driver turned the steering wheel to the right or left.

Whereas the rear of each front semielliptical spring is retained by a shackle, the front of the spring is bolted to the cast steel fram brackets. A the front of the spring is a cast spring eye and bushing, which is clipped to the front ends of the spring leaves.

The muffler and its guard appear on the near side of the front drive shaft at the upper left of this view from the right side of an M26A1. To the right is the rack for two flare boxes on the rear of the cab.

The door of the built-in pioneer tool rack on the right side of the cab is open, revealing the latches on the inner surface.

A hook clamped to the end of the wire rope of the front winch is hanging from an eye attached to the center lug on the bumper. On either side of the winch are a yellow and red coupling for air hoses. To the left of the winch cable drum is the lower part of the gear box of the winch.

Under the front of the cab at the top of the photo are one of the two air cleaners (right) and a crew rations bin (left). Rust has claimed most of the bottom of the bin. Access to the bin is via a lid on the floor in front of the commander's seat.

At the upper right is the double bearing, with the front winch drive shaft entering the bearing at the rear (left) and the sprocket and roller chain that power the winch to the front of the bearing. The gear case and drum of the winch are to the upper right.

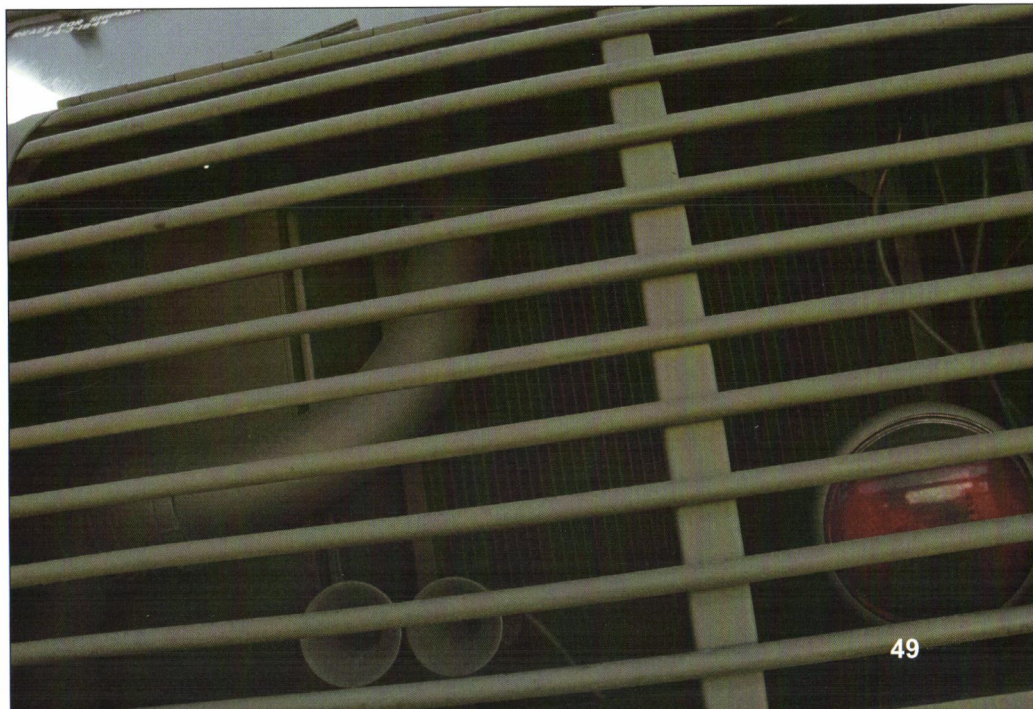
On the bumper of this M26A1 are the markings for the fifth vehicle in A Company, 126th Ordnance Maintenance Battalion, 4th Armored Division. The semi-recessed design of the service headlights and the substitution of a radiator grille for the radiator shutters of the M26 are evident. A spare tire is mounted on the front of the semi-trailer.

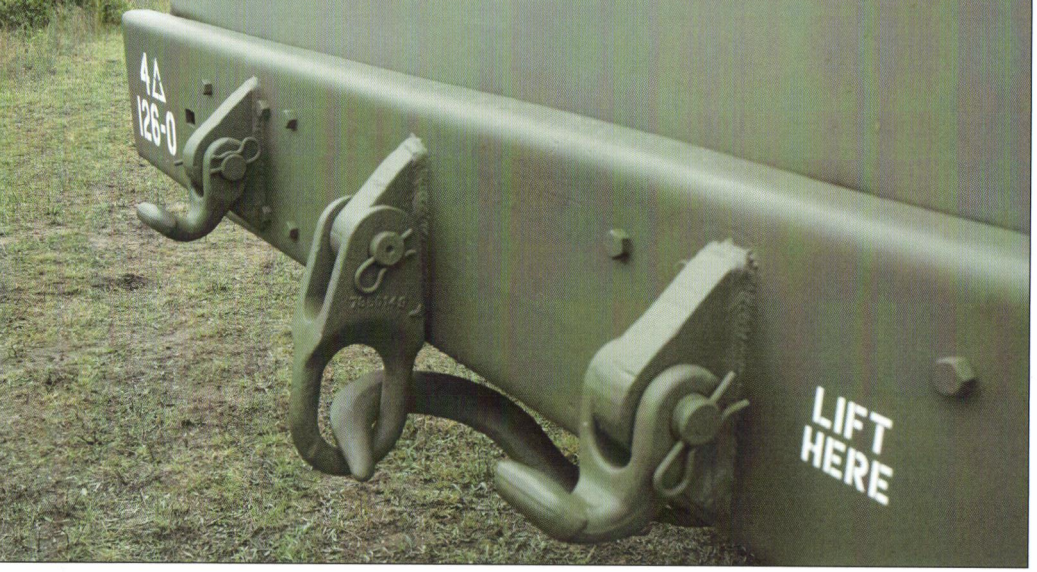
The windshields of the M26A1 are hinged at the bottom. On the front of the body below the windshield are latches for securing the windshields when lowered. Visible behind the radiator grille are the dual horns (left), siren/flashing light, and blackout headlight.

Lying down at the top of the center column of the windshield is the spotlight. It could be removed from its mount, fitted with a pistol-grip handle, and used as a trouble light with an electric cord and reel stowed in the cab.

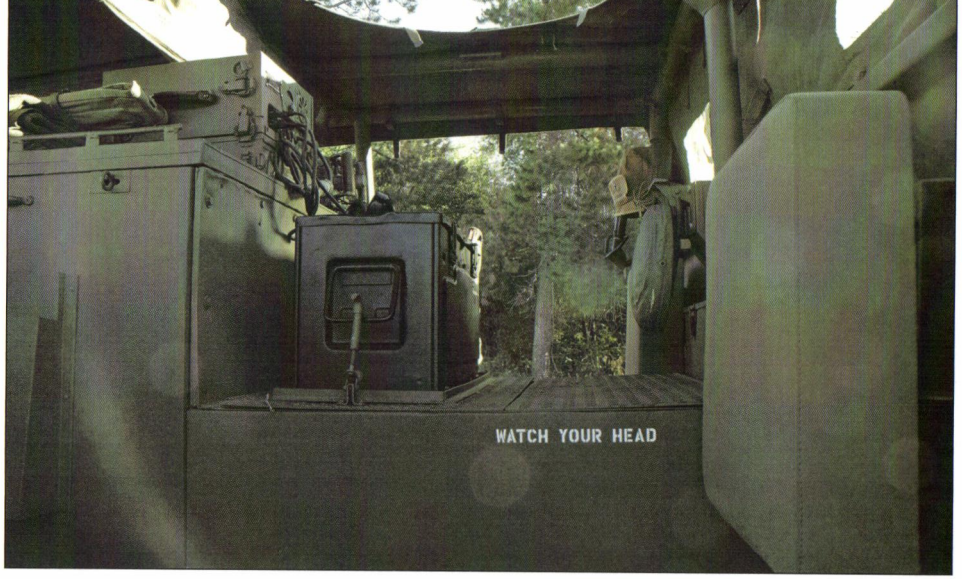
The flashing light and blackout headlight behind the grille in front of the radiator are seen up close.

The hose from the air cleaners to the carburetor is behind the grille to the left. Twin horns are visible below the hose at the bottom of the photo.





The piece of hardware secured with a retainer pin to the center towing eye on the front bumper is called a shackle ring. The hook of the winch cable is looped through that ring. Tow hooks are fastened to the two outer towing eyes with large cotter pins. All three eyes are welded to the bumper.



Looking into the rear of the cab from the left door, the opening for the machine gun ring mount is at the top, the back rest of a rear crew seat is at right, and the engine compartment cover and an SCR-609 radio set are to the left. A tool box (but not the vintage-WWII Blackhawk heavy tool set) is clamped to the lid of the cab tool box.

Also stowed on the engine compartment cover are a .50-caliber machine gun and blankets. On the near corner of the top of the engine compartment is a filler cap for the hydraulic fluid tank. Strapped to the crosspiece of the top frame is a crosscut saw in a canvas case. To the right is a rack for .50-caliber ammunition boxes.

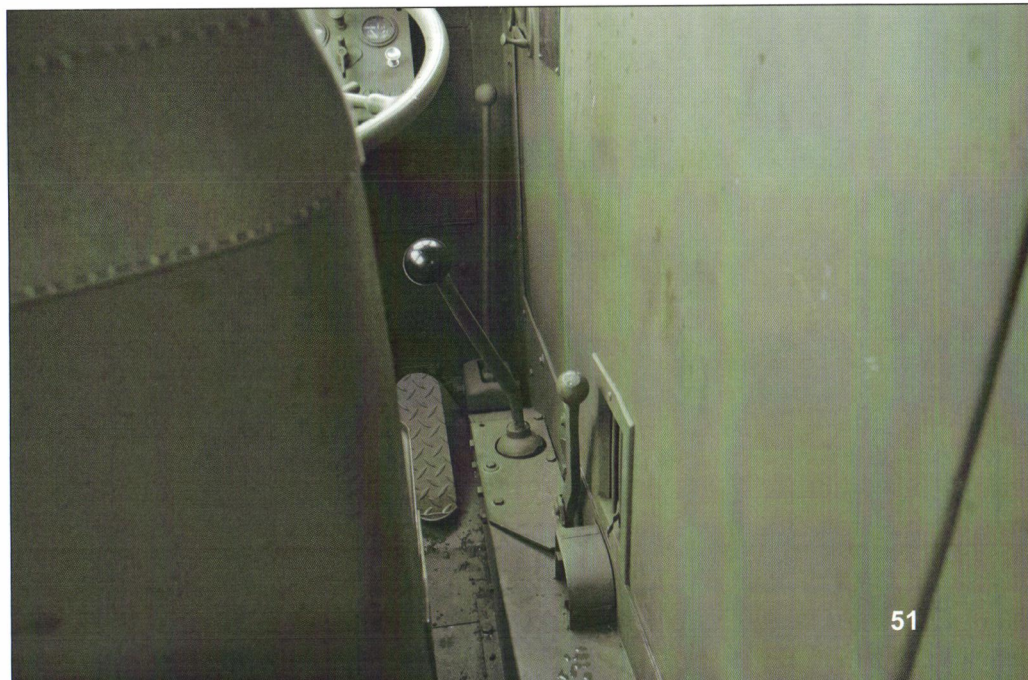
Two removable covers flank the engine compartment, one on each side. When turned vertically, the eye-shaped turnbuckles at the top of the covers hold them shut. The rails atop the engine compartment facilitate strapping down equipment. On the side cover of the engine compartment is a small stowage rack for the lube order and manuals.

As on the M26, a five-gallon water can is stowed behind the driver's seat of the M26A1. To the right of the driver's seat are the front axle declutch lever, the engine ventilator, and, below the small hooded guard, the fuel tank change-over valve.

The layout of the driver's compartment of the M26A1 is similar to that of the M26. To the lower right of the steering wheel is the transmission shift lever. The brake and accelerator pedals are to the right of the steering column and the clutch pedal is to the left of it.

Above the steering wheel is the windshield wiper motor. Arrayed around the steering column are, left to right, levers controlling the left tractor air brake, semi-trailer air brakes, and right tractor air brake.

The auxiliary transmission shift lever is to the front in this view to the right of the driver's seat. That lever as well as the transmission shift lever and the front axle declutch lever are situated on the shifter-rod tunnel.

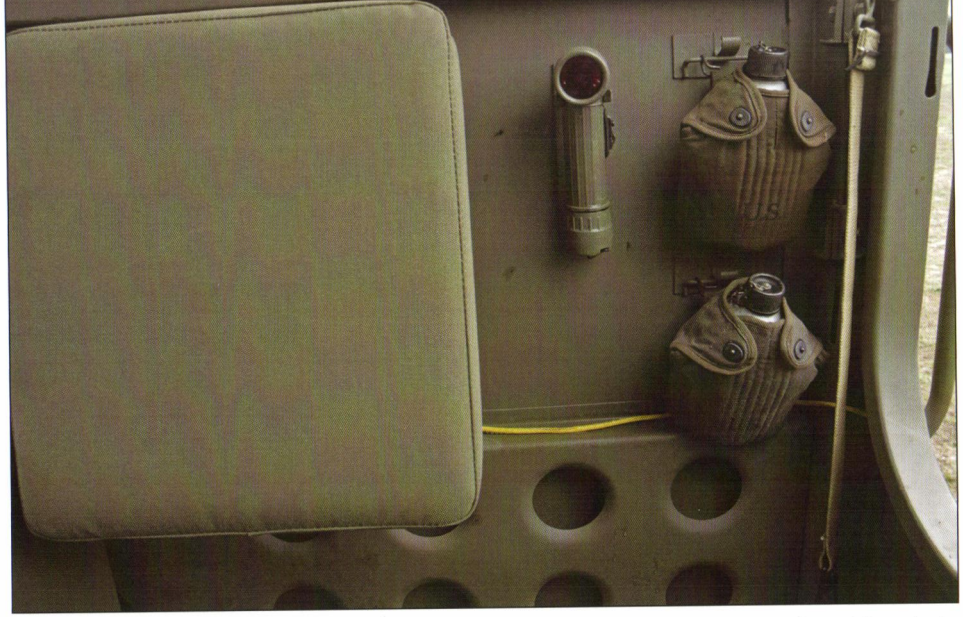


On the M26A1 the decontamination apparatus was moved to a position next to the driver's seat. Flanking the decontamination apparatus are a windshield stowage bracket (left) and two canteens. At the center is the hand-brake lever. Arrayed around the steering column are hand controls for the air brakes and trailer brakes.

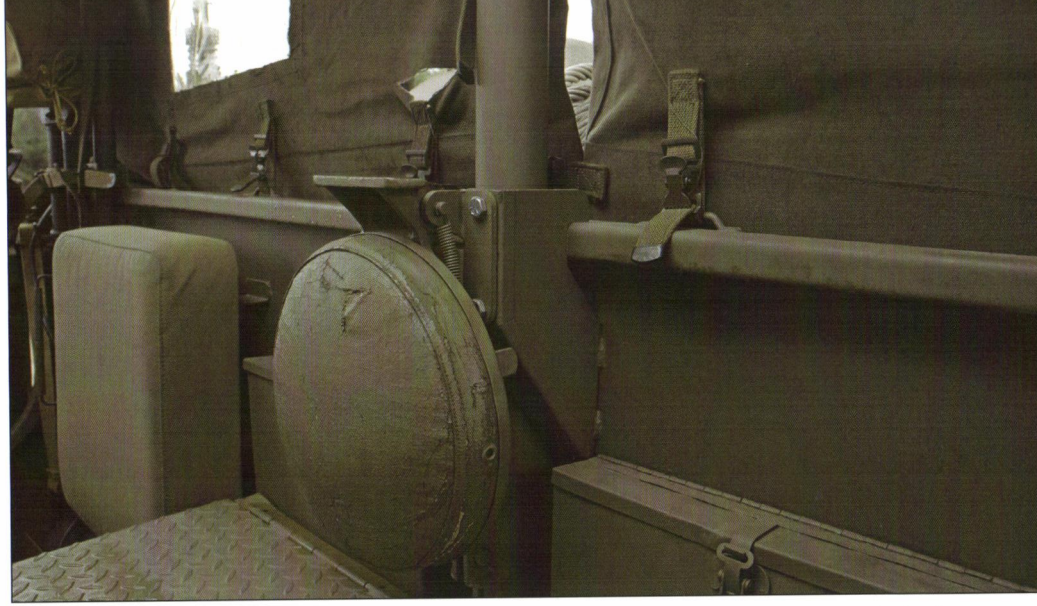
A first-aid kit, flashlight, and five-gallon liquid container are stowed to the rear of the right side crew seat. Next to the flashlight is a support for one of the posts of the top frame. The support is a clamping type, with a vertical slot and tightening bolts.

A five-gallon liquid container is stowed on a rack just above the floor by the right side door. A strap holds the liquid container in place on the rack.

A tubular framework supports the M49C ring mount and also a removable waterproof canvas top. The carriage holding the machine gun can be rolled around the ring mount and locked in place, allowing the gunner to fire from different positions.



In the left rear corner of the cab are a crewman's seat (the back is shown) and brackets for a flashlight and two canteens. Hanging by the side door is a webbing safety strap; clipped to both sides of the top of the door, it helped keep crewmen from tumbling out if the vehicle suddenly hit a bump or made a sharp maneuver.



Mounted on a bracket straddling a post of the top frame at the rear of the cab is the machine gunner's round seat, folded down. Grenade boxes flank the seat. To the left is the back of the left rear crew seat. Tie-down straps secure the bottom of the canvas top to footman loops atop the cab body.

The SCR-609 receiver-transmitter on the cover of the rear of the engine compartment comprises a BC-657L receiver-transmitter (top) and CS-79 battery case (bottom). A lug on the bottom of the .50-caliber machine gun is pinned to the mounting bracket on the rear right side of the engine cover. The small circular object above the machine gun's receiver is the right rear-view mirror.

The right side door on this M26A1 consists of canvas stretched over a rigid frame. The latch is to the right. A Thompson submachine gun in a canvas case is stowed to the rear side of the rack for .50-caliber machine gun ammunition boxes. The tripod for the .50-caliber machine gun on the ground has been moved from the cab roof position of the M26 to the right rear corner of the cab; a spare .50-caliber barrel is also stored there.

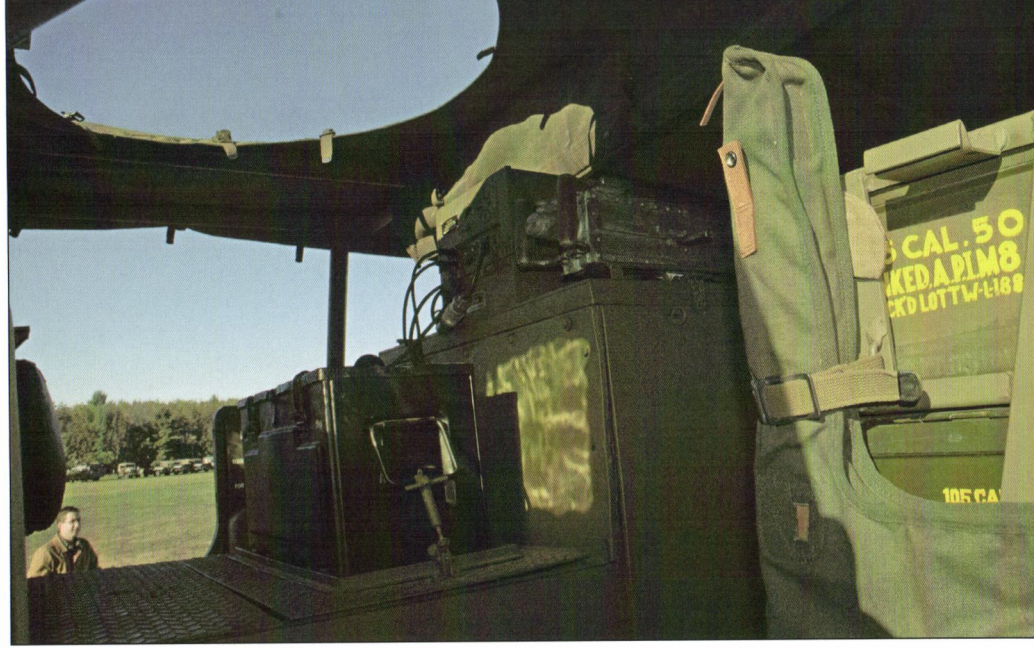
The ammunition rack and stowed Thompson submachine gun are seen here from the center rear of the cab. The grips and trigger of the stowed .50-caliber machine gun are to the left. The small hump on the floor below the door is the top of the recess for the exterior steps.

At the right front of the vehicle interior is the commander's seat. Behind it, facing the right side of the engine compartment is a crewman's seat. The .50-caliber ammunition boxes are painted in at least three different shades of olive drab. One adjustable webbing strap held two boxes in place.

Barely visible to the left of the commander's desk is a pair of bolt cutters. Over the desk is the windshield wiper motor. A .50-caliber machine gun is stowed on top of the engine compartment to the left.

The commander's desk top has a piano hinge and flips up for access to items stored inside the desk. On the cab wall to the right of the desk are a decontamination apparatus and hand-held fire extinguisher.

To the upper left is the holder for the muzzle of the stowed .50-caliber machine gun. To the right of the barrel is a tie-down rail for strapping down the blankets and other gear stowed on top of the engine compartment. Above the center of the desk is a small dome light.



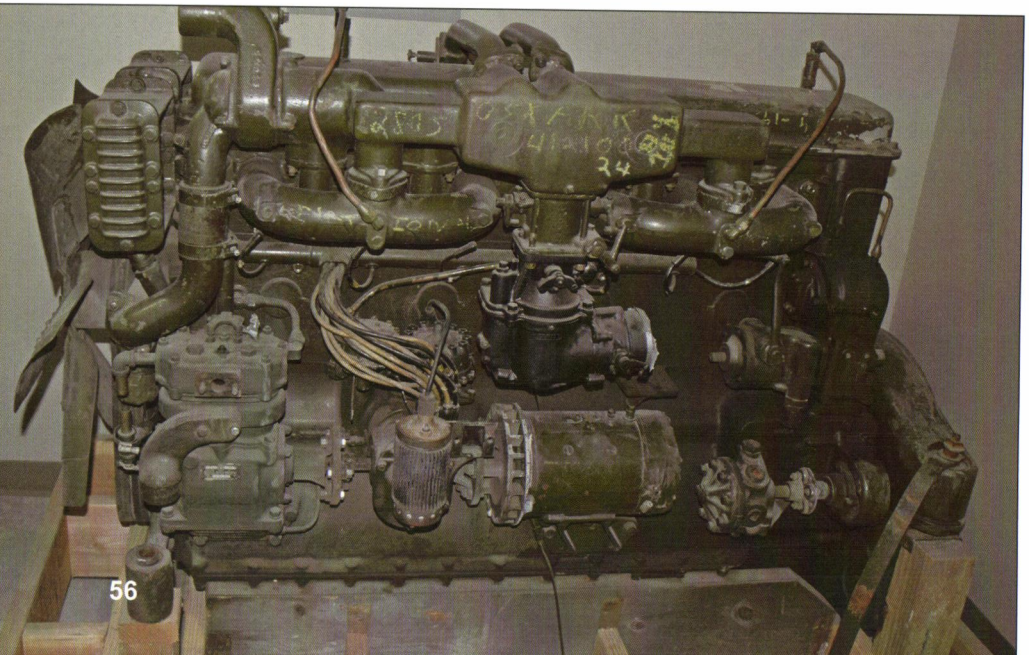
Seen here through the right side door of an M26A1 is a .45-caliber Thompson submachine gun in its canvas case, strapped to the rear side of the .50-caliber ammunition rack. The cab tool box is at the lower left, the engine compartment is to the center, and the opening for the machine gun ring mount is at the top left.

The back of the commander's seat with its slip-over cushion appears at the center of this low-angle, forward-looking view of the cab's right side. On the left are the engine compartment's right side-covers. The .50-caliber ammunition rack is on the right.

Two of the three mounting brackets of the ring mount are visible in this photo taken from the right side door of an M26A1 facing toward the left rear corner of the cab top. The canvas top is constructed to fit tightly around the base of the mount.

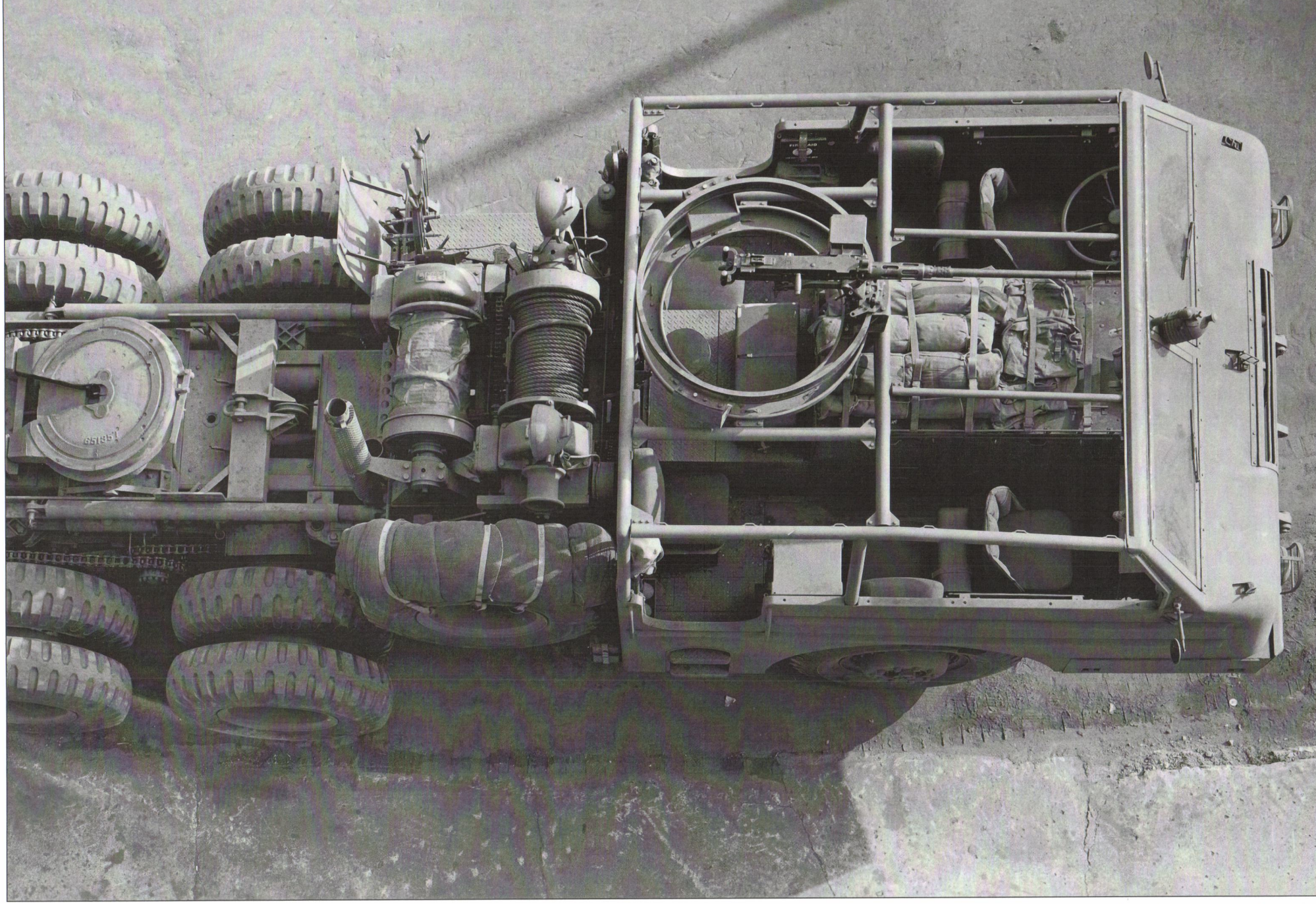
The Browning M2HB .50-caliber machine gun is in its cradle on the ring mount. The ring used is a standard M49 mount, and the machine gun is affixed via a D40733 cradle assembly. This mounting permitted the big 85-pound Browning to be traversed 360°, elevated 80°, and depressed 20°, allowing both air and ground targets to be engaged. The M2HB, firing ball ammunition, has a 2,000-yard effective range and a muzzle velocity of 2,910 feet per second. Its rate of fire is 450-650 rounds per minute. Toward the right of the weapon are the antenna and the rear floodlights, which are mounted atop the front tandem winch bearing caps.

The powerplant of both the M26 and the M26A1 was this massive Hall-Scott 440 6-cylinder gasoline engine. The 12 spark plug wires leading from the distributor cap reflect the two-spark-plug-per-cylinder arrangement. The engine was originally developed for marine applications.



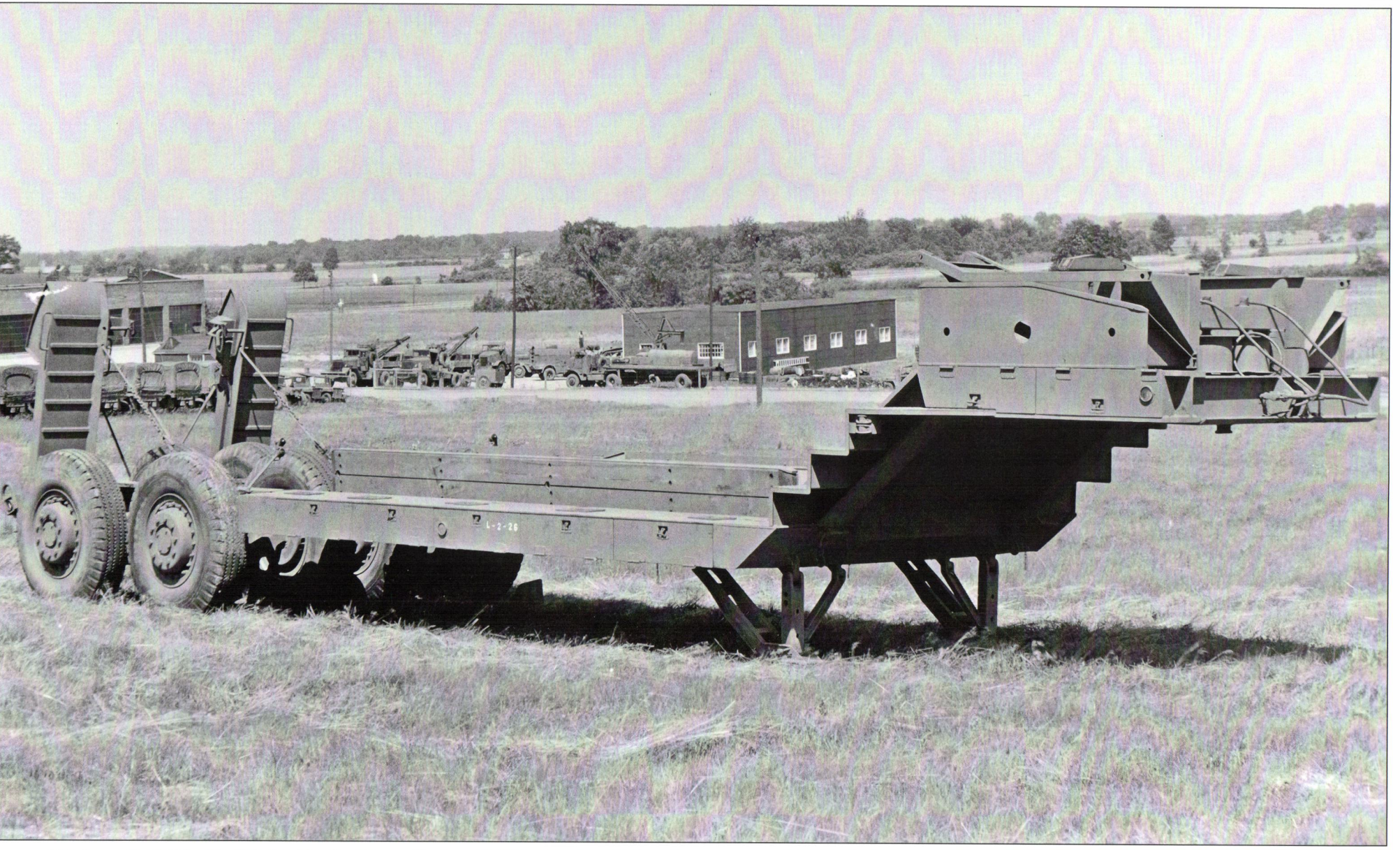
Engine Data

Engine Make/Model	Hall-Scott 440
Number of Cylinders	6
Cubic Inch Displacement	1,090
Horsepower	240 @ 2,000
Torque	810 @ 1,200
Governed Speed (rpm)	2,100
Bore and Stroke	5.750 x 7 inches
Dry Weight, with all accessories	2,100 pounds
Overall Length	50 inches
Overall Height	52 inches
Octane Rating Required	72 to 87

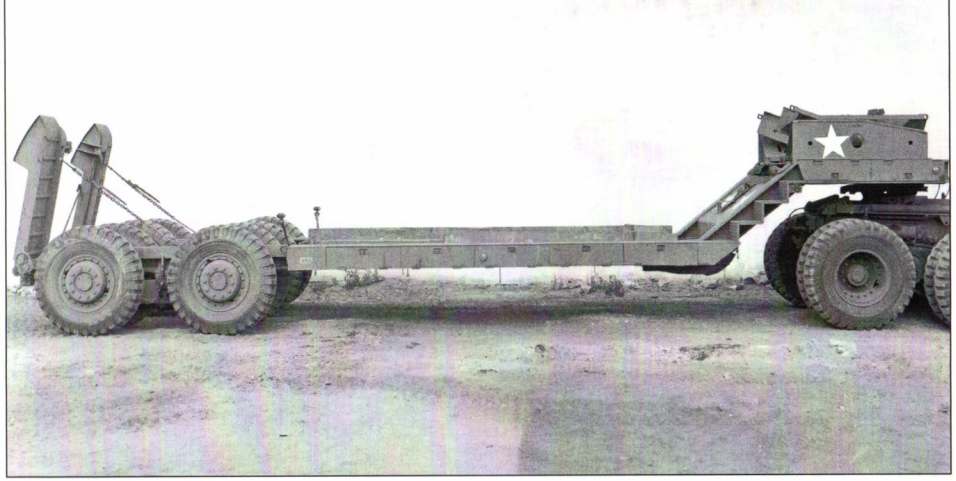


This overhead shot of an M26A1 taken at the Engineering Standards Vehicle Lab, Detroit, Michigan, in November 1944, exhibits a wealth of features with the cab top removed. Below the tubular framework that supports the top as well as the ring mount, rolled-up blankets are strapped to the top of the engine compartment. The Blackhawk heavy tool set is secured with one strap to the top of the cab tool box. A cover is wrapped around the rear tandem winch drum. (TACOM LCMC History Office)

M15 Tank-Recovery Semi-Trailer

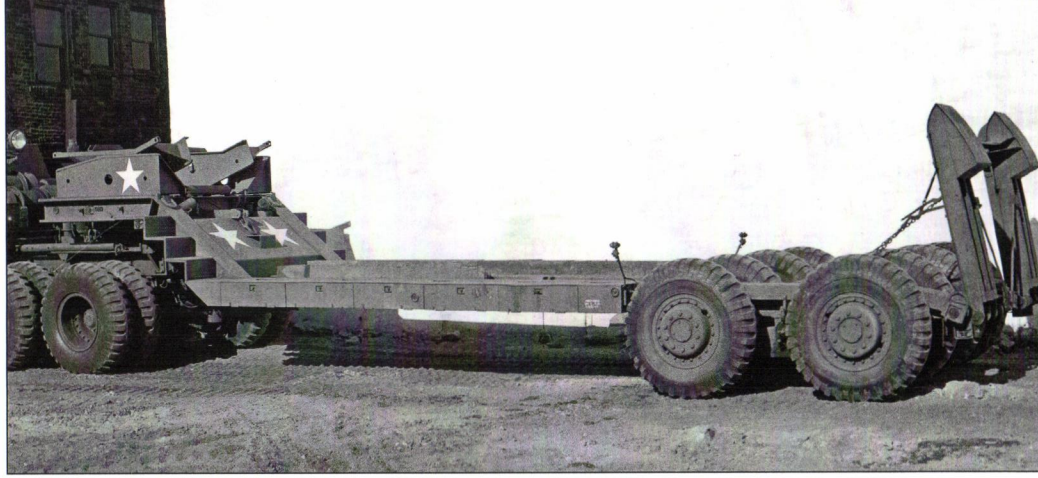


Photographed at the Studebaker Proving Ground in June 1944 is a Freuhauf M15 tank-recovery semi-trailer, its front resting on two retractable supports. The stowage compartments with bottom-hinged doors along the sides of the bed are a key feature of this model. Another identifying feature of the M15 is the pair of stowage racks for four wheel guards atop the duckbill. These covers were lowered using the crane and placed over the rear wheels to protect them when larger vehicles were being loaded or unloaded from the semi-trailer. (TACOM LCMC History Office)



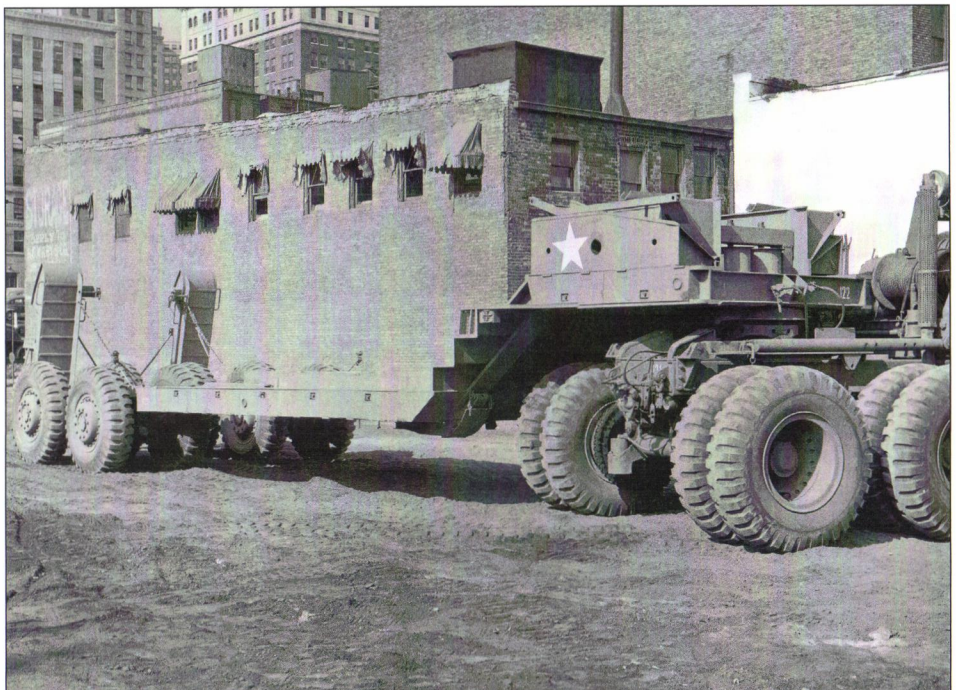
The right wheel guard rack is the structure with the white star on the side; the wheel guards are visible in place in the racks. Steel steps are built into the sides of the gooseneck's girders. On tilted poles in front of the front tires of the M15 are two auxiliary clearance lights, installed when the semi-trailer was hauling wide loads. Raised in their travel position at the rear, secured with chains and turnbuckles, are the two ramps, also called the trail skids or permanent skids. (TACOM LCMC History Office)

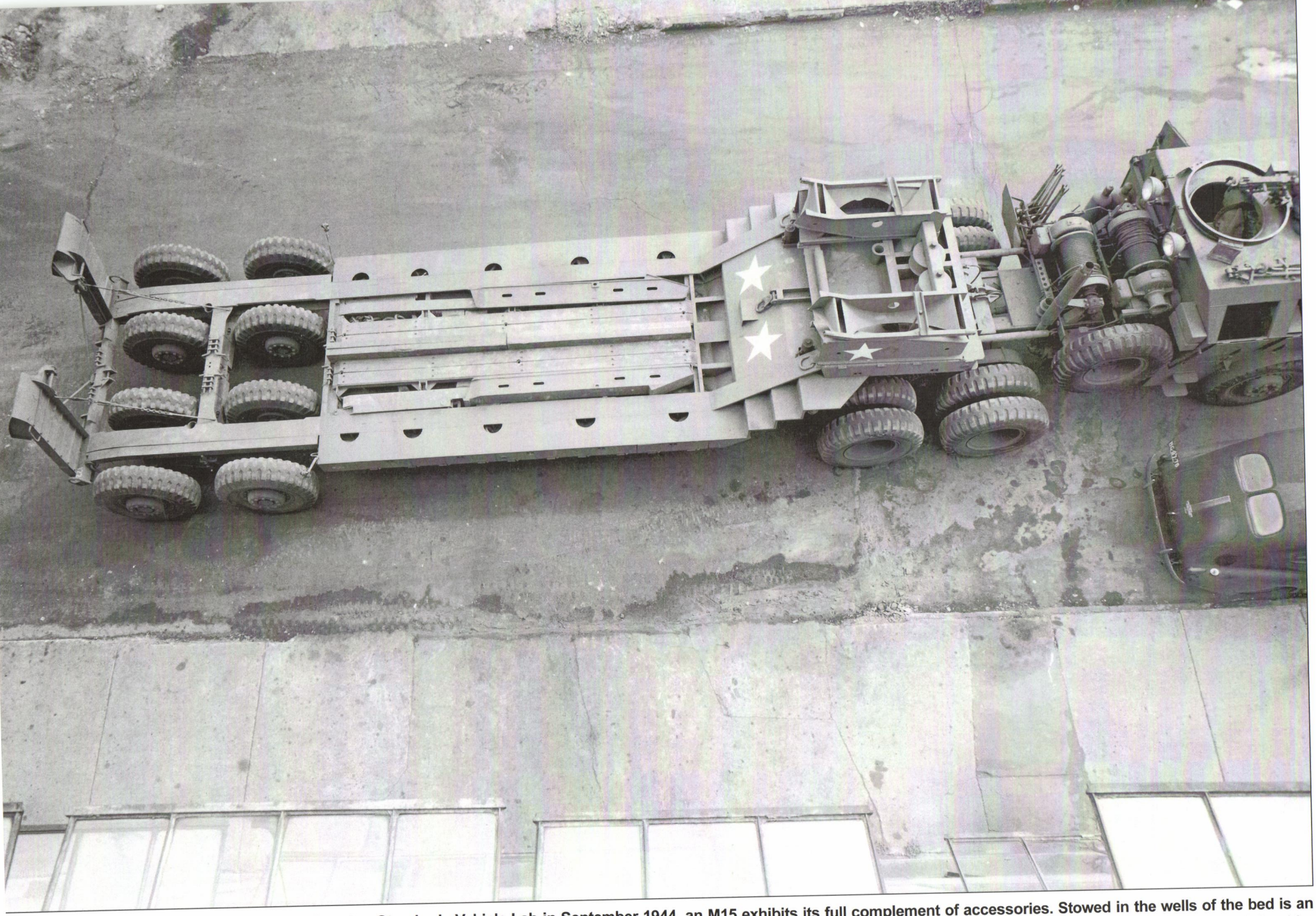
On the upper deck between the wheel guard racks are the two vertical rollers for the winch cables. Not visible below these rollers is a long, horizontal roller. Also hidden from view on both sides of the upper deck are two socket mounts for the crane. The front stowage bins on the left side of the trailer bed held a tool kit, tow chain, tire tongs, a hand-ratchet chain fall, and other implements. (TACOM LCMC History Office)



This M15 at the Engineering Standards Vehicle Lab, Detroit, is hitched to an M26. Parts of the wheel guards are visible in their racks on the upper deck. The rear bins on both sides of the semi-trailer's bed held removable skids and loading skid channels. The forward bins on the right side of the vehicle held a tow chain, snatch blocks, and single and double blocks (i.e., pulleys). (TACOM LCMC History Office)

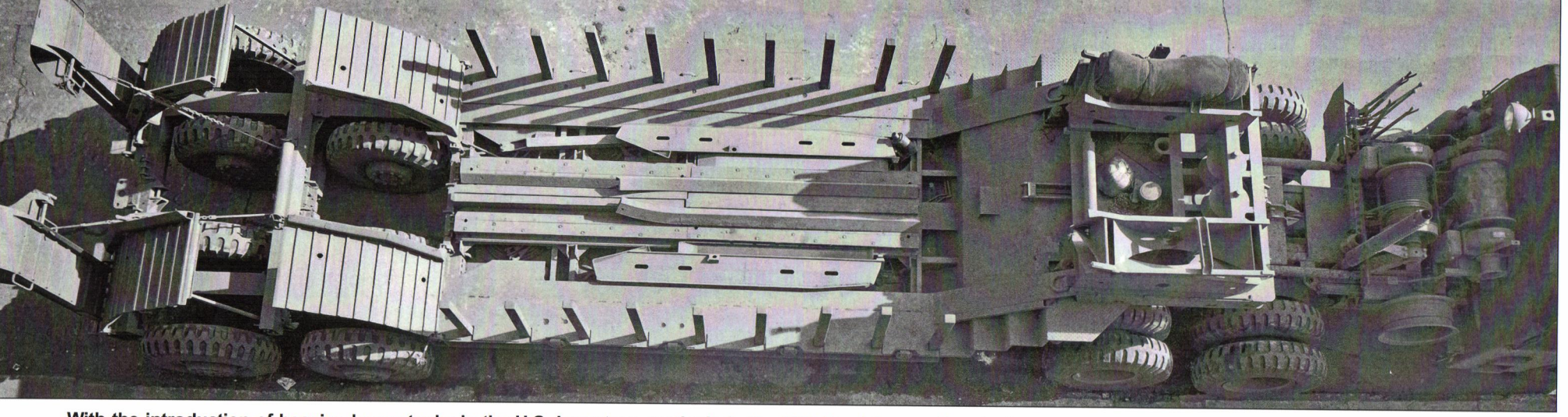
In this frontal view of an M15 semi-trailer resting on its retractable supports at the Engineering Standards Vehicle Lab in September 1944, the two vertical cable rollers and the ends of the four wheel guards are visible on the top deck. At the center of the front frame member of the upper deck is a pickup bar for towing the trailer. Behind the pickup bar is the socket for the trailer lights. Flanking the bar are the service (left) and emergency (right) air couplings for the brakes. (TACOM LCMC History Office)





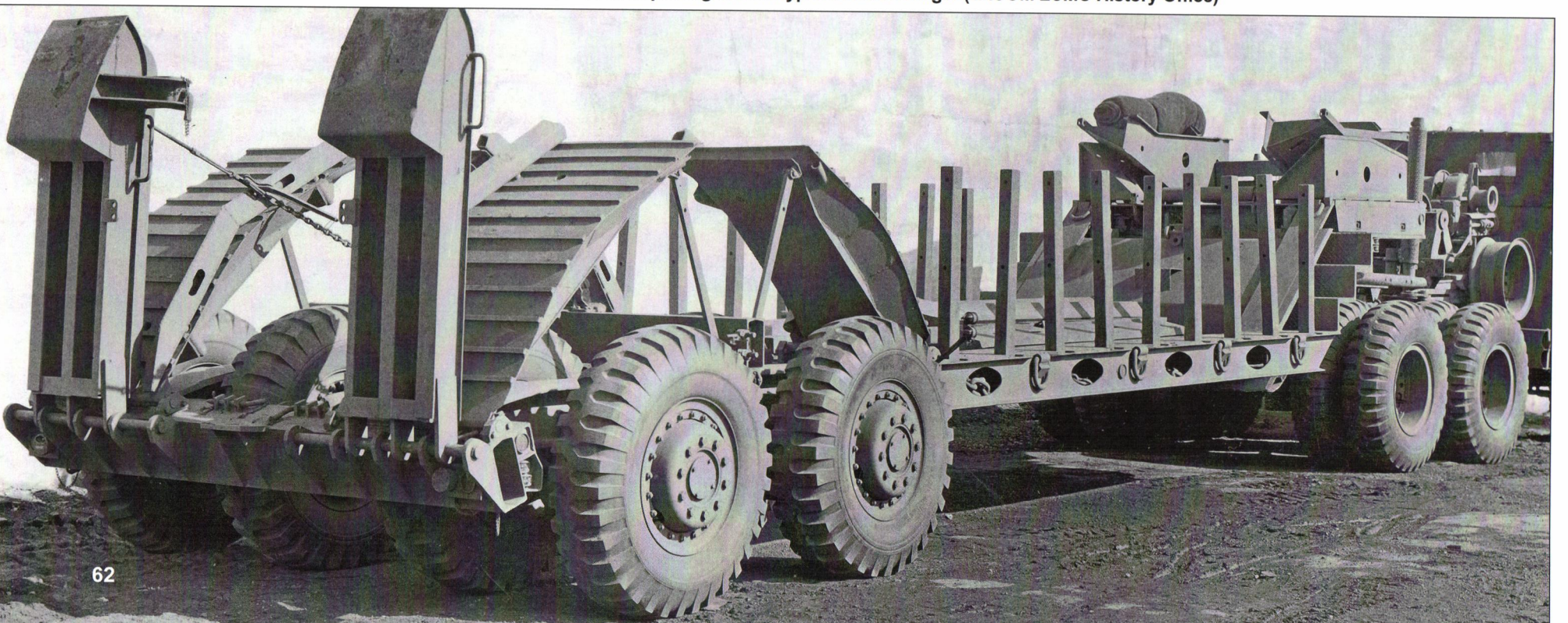
In another photo taken at the Engineering Standards Vehicle Lab in September 1944, an M15 exhibits its full complement of accessories. Stowed in the wells of the bed is an assortment of skids, planks, chock blocks, and other implements. Between the tires and the beams of the M15, side-rail extensions have been installed, forming a slightly wider surface for transported vehicles to negotiate. (TACOM LCMC History Office)

The ramps are mounted on horizontal hinge pins, allowing them to be adjusted side to side to accommodate vehicles of different sizes. The ramps are shown here at their outermost positions. Stabilizer rods are connected to the ramps and the rear of the trailer. Although the M15 was configured to accommodate the track widths of the most common U.S. light and medium tanks, there were times when the vehicle was put to work transporting oversized vehicles, which could damage the tires when loading or offloading. (TACOM LCMC History Office)



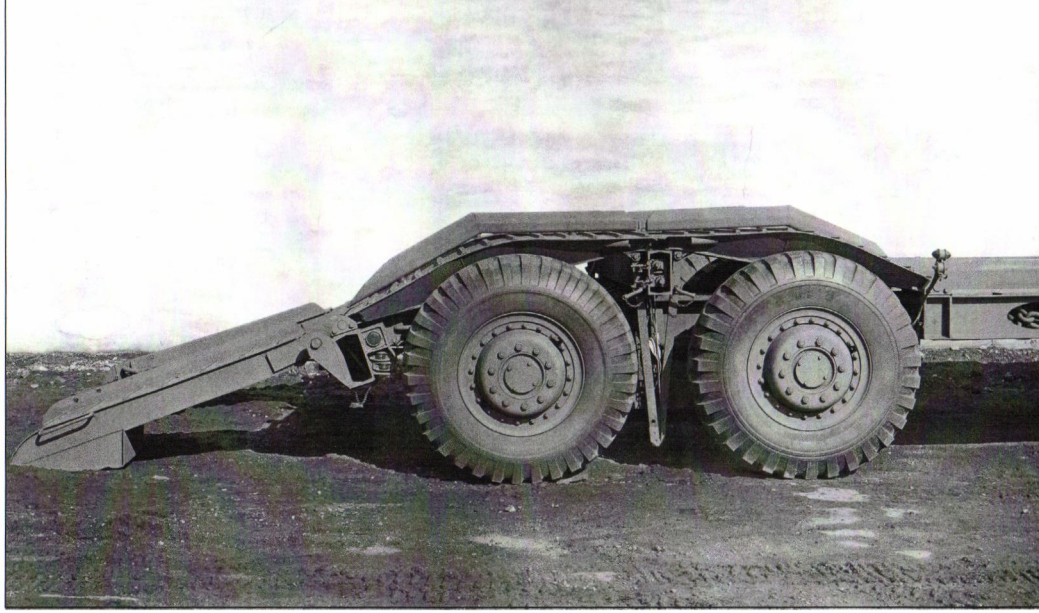
With the introduction of heavier, larger tanks in the U.S. inventory, particularly the M26 Pershing medium tank, measures were taken to improve on the M15 semi-trailer. The resulting model, the M15A1, featured permanently installed, hinged wheel guards (or bridges), which, when lowered, formed a sturdy ramp over the tires. Another improvement was the installation of girders on both sides of the chassis beams, forming a wider platform on each side of the vehicle. Although the removable wheel guards were now redundant, they are still present in their racks on this prototype vehicle. (TACOM LCMC History Office)

At times, the M15A1 would haul large loads of cargo other than vehicles. Photographed at the Engineering Standards Vehicle Laboratory, Detroit, in March 1945, this M15A1 semi-trailer is fitted with stakes that were used when the vehicle was transporting certain types of loose cargo. (TACOM LCMC History Office)



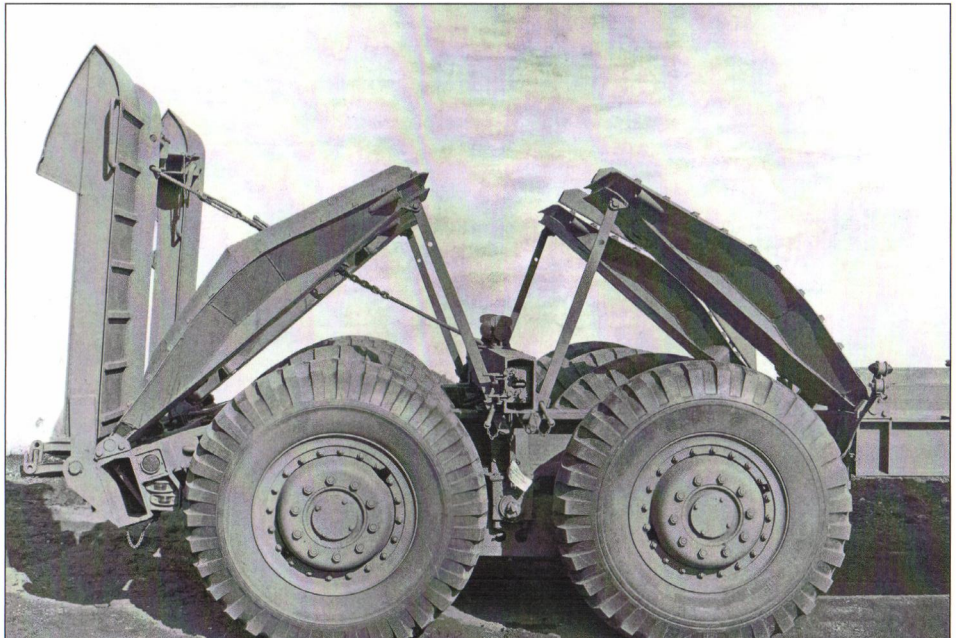
General Data

MODEL	M26	M26A1
WEIGHT NET GROSS	48,895 pounds 108,895 pounds	27,600 pounds 87,600 pounds
MAX TOWED LOAD	117,500 pounds	117,500 pounds
LENGTH	306 inches	306 inches
WIDTH	130.5 inches	130.5 inches
HEIGHT	123 inches	123 inches
WIDTH (at tires)	65.5/130.5 inches	65.5/130.5 inches
TRACK	98	98
TIRE SIZE	14.00-24	14.00-24
MAX SPEED	28 MPH	28 MPH
FUEL CAPACITY	120 gallons	120 gallons
RANGE LOADED	120 miles	120 miles
ELECTRICAL	12 NEGATIVE	12 NEGATIVE



The wheel guards and ramps are shown here in their lowered positions. When the wheel guards were lowered, their struts were allowed to dangle between the tires. There is a large chain in the bin behind the oval cutout to the right, and the auxiliary clearance lights on the extension pole to the front of the wheels. (TACOM LCMC History Office)

In their travel position, each of the wheel guards on the M15A1 was supported by two steel struts. The reflector and clearance lights behind the rear tire are visible in this photo of the outer sides of the right wheel guards. Holding the ramps in their travel position is an assembly comprising steel rods, chain, and a turnbuckle; the front end of it is attached to the cross beam between the wheels. (TACOM LCMC History Office)



The over-wide hinges of the ramps of the M15A1 allow for the lateral adjustment of the ramps when lowered, to accommodate the varying widths of tracks on different recovered vehicles. The M15 semi-trailer had a similar arrangement. (TACOM LCMC History Office)

M15A2 Tank-Recovery Semi-Trailer

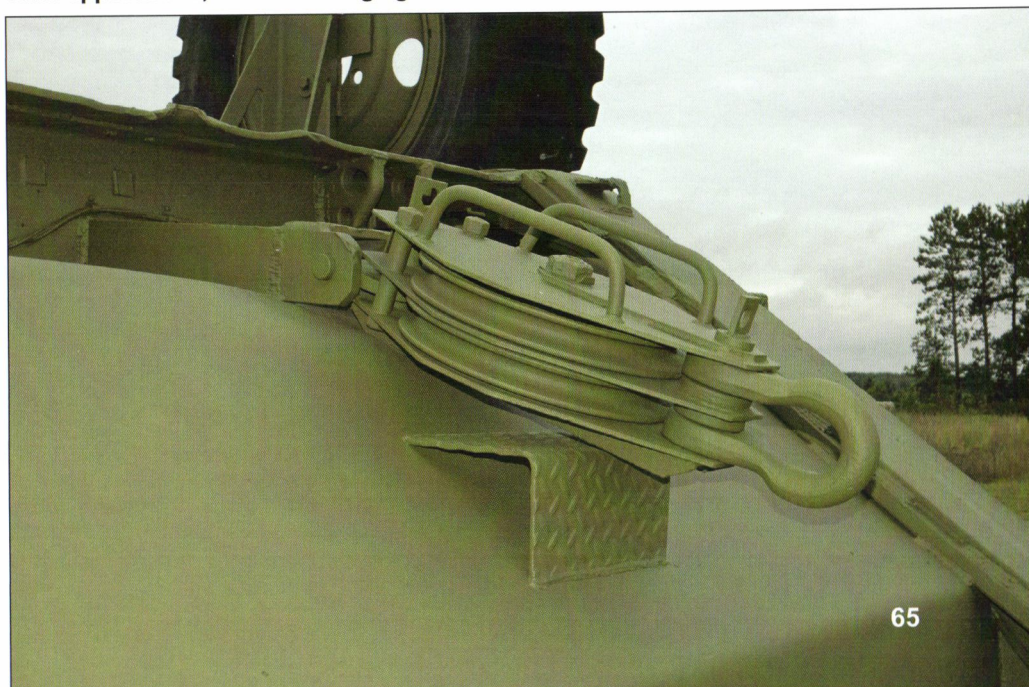
The M15A2 semi-trailer, an example of which is coupled to this M26A1 tractor, was a postwar improvement on the M15A1, with major reinforcements to the trailer frame, a wider chassis to accommodate larger tanks, and the removal of the stowage lockers along the sides of the upper deck. A key identifying feature is a flared fairing added to the sides of both beams to the front of the tandem wheels (painted with diagonal yellow stripes on this vehicle).

The left retractable support of an M15A2 is seen up close, with the rear of the semi-trailer to the right. The vertical member was designated the strut, while the angled rear member was called the leg. There is also a brace to the inner side. The leg's angled shape allows it to conform to the angle formed by the bottom and the neck of the trailer (top of photo) when the support is raised to its stowed position.

The mounting brackets for the struts of the supports comprise lugs on large, thick base plates, welded to the underside of the trailer. The upper mounting points of the left leg is at the upper right.

Diamond-tread plate was used in constructing the steps up the side of the neck of the trailer. Just visible to the front of the top riser of the steps are the two left clearance lights: an upper service light and lower blackout unit.

A large, two-sheave snatch block attached to the center of the neck served as a force multiplier when winching vehicles onto the trailer. A cable routed from a winch through a two-sheave snatch block exerted far greater pulling power on a heavy vehicle than a cable routed directly from the winch to the vehicle to be pulled. Snatch blocks also had other applications, such as changing the direction of a winch cable.



Four D-rings were provided on the sides of the beams of the M15A1 and M15A2, for use in securing loads and vehicles to the semi-trailer. This one is the front left D-ring, with the lower riser of the steps to the upper left.

This close-up of one of the oval openings on the side of an M15A2 illustrates that a separate plate with oval cutout is tack-welded over each opening. There was space inside the openings to stow equipment. There is a reflector next to the plate.

Two of the oval openings and D-rings on the left beam are in view. For reinforcing around the oval-shaped openings, extra steel plates were welded to the side beams of the trailer. The outer plate is tack-welded to the main beam around the perimeter of the oval cutout. To the right are the raised wheel guards.

The flared fairings to the front of the wheels are of welded construction, with a flat top piece, curved side section, and welded reinforcing strip on the side. The square pockets on the top piece accepted stakes when the semi-trailer was used to transport non-vehicular cargo, such as lumber.

A D-ring and retainer are mounted on the top piece of both retainers, as a hold-down device.

The left fairing of an M15A2 semi-trailer is viewed from the rear. Next to the rear of the structure are the outboard hinge mounts for the front left wheel guard. In the background, the placement of the double-sheave snatch block and the spare tire are visible.

The suspension of the M15, M15A1, and (shown here) M15A2 semi-trailers is a walking-beam type, hinged to the side beams with trunnions, the left one being between the tires at the lower center of the photo. At the top center are the lower attachment points for the struts of the wheel guards, with their locking pins in place.

In its raised position, the fairly complex welded construction of the left front wheel guard (the lower part of which is seen here from the rear) is evident. The tops of the two left tires are in the lower part of the view.

The struts of the wheel guards have holes at intervals, to enable them to be secured with locking pins at various angles.

The upper end of the struts for the wheel guards are secured to mounting lugs with hinge pins fixed in place with cotter pins.

At the center are the two front wheel guards in their travel position. The ends of the raised tread strips on the top surfaces are visible. An M4A3 medium tank with HVSS suspension is loaded on the trailer bed. (Chris Hughes)

The raised ramp is at the far right in this rear three-quarters view of the left wheel guards in their travel position. The combat rims are mounted with nondirectional 14.00-24 tires. (Chris Hughes)

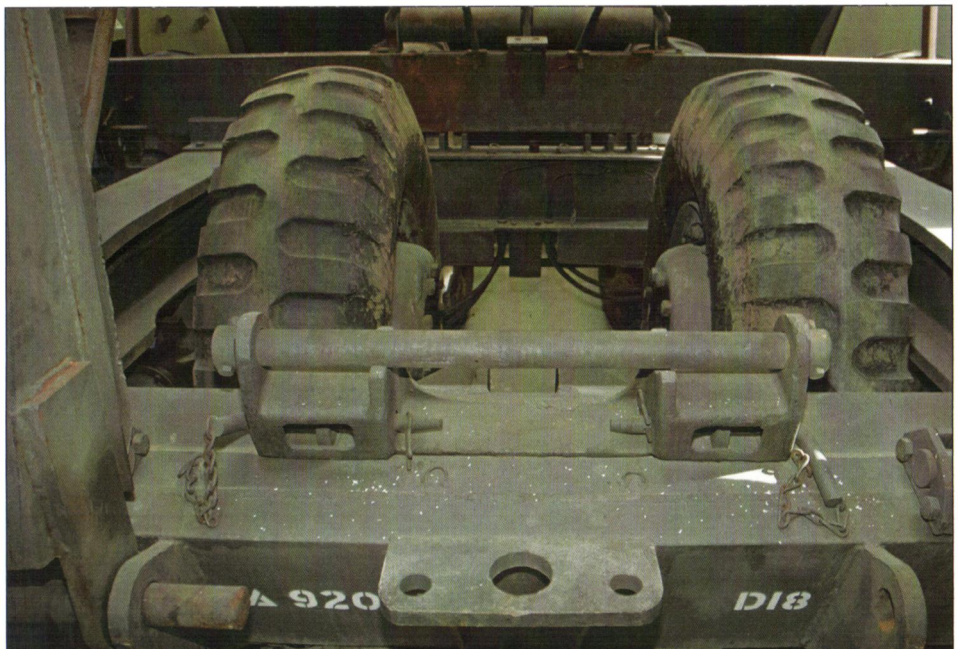
Lying across the trailer bed between the wheels in the lower right is a lateral beam upon which the wheel guards rest when lowered. The transition from the fairing in front of the wheels and the side beam is also illustrated.

The ramps in their travel position are viewed from the left rear of an M15A2 semi-trailer. There are grab handles on both sides of the ramps, but normally the ramps were operated by a tandem winch and wire rope, or they could be raised by attaching cables to them from the rear of a vehicle being winched onto the trailer. (Chris Hughes)

At the rear of the sides of the M15A2 is an arrangement of clearance lights and a reflector similar to those on the M15A1. Above the open-ended rear cross member (center) is the side of the hinge for the left rear wheel guard. The right rear wheels are visible above the reflector.

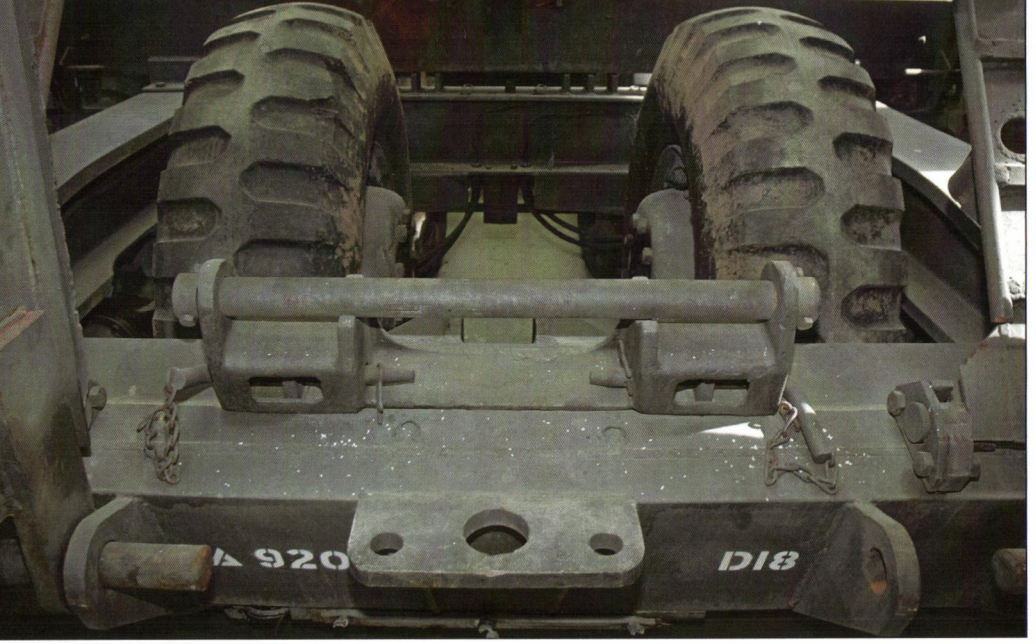
Running across the center of the photo is the massive hinge pin for the left ramp. At the bottom is a tail light assembly.

When the two stabilizer rods were installed on the trails, one end of each rod would be attached to an outer hole of the plate with three holes at the center, located on the rear cross member of an M15A2 semi-trailer. Pinned to lugs on top of the cross member is a removable rear roller designed to guide a wire rope in certain winching operations to the rear of the semi-trailer. (Chris Hughes)



The right ramp and, in front of it, the right rear wheel guard of an M15A2 are viewed from the center of the rear of the semi-trailer. The three longitudinal beams of the frame of the ramp are visible. Inserted into sockets on the inboard side of the ramp is a guard rail with oblong hand-holds on the side. In the background is the front right wheel guard.

From left to right, the left ramp, rear left wheel guard, and front left wheel guard are seen from the rear of an M15A2. To the right is the tractor.

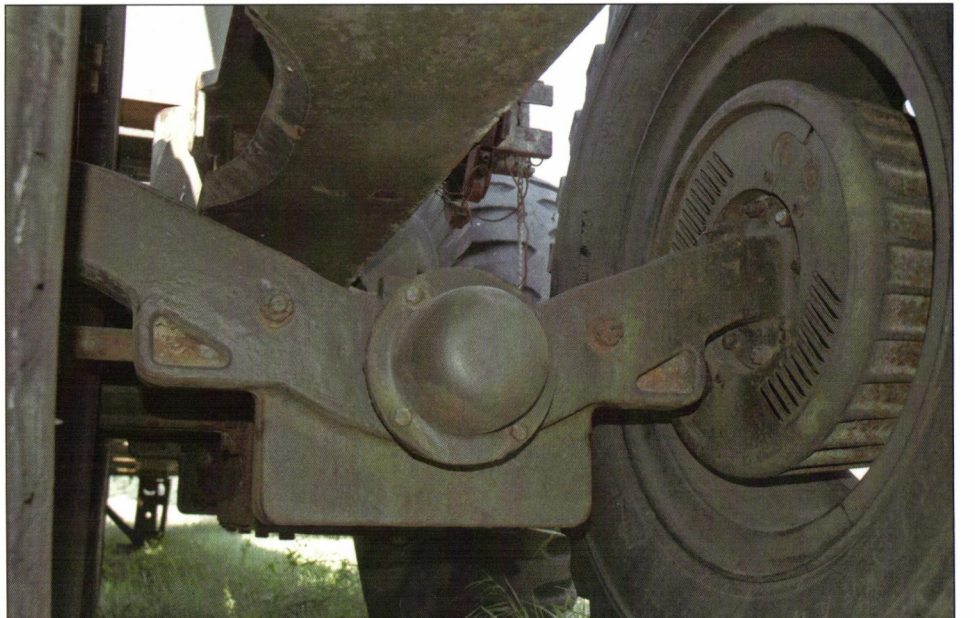


The two inner rear tires of an M15A2 and the tops of the front four tires are visible; the outer tires are out of the photograph, and the wheels are mounted in pairs on trunnion axles. In addition to the removable roller in the foreground, there is another horizontal cable roller mounted on the lateral beam in front of the rear tires. (Chris Hughes)

A closer view of the two inner rear tires reveals the ventilation holes of the steel combat rims. Under the lower cross member are stretch-type rubber boots that are fitted over the shifting screws, part of a mechanism whereby the wheels could be adjusted from side to side to reconfigure the suspension for different types and sizes of loads.

The inner left rear tire of the M15A2 semi-trailer. Each wheel is mounted on 10 studs and secured with hex nuts. The wheels are equipped with air brakes but lack parking brakes. Thus, it was necessary to place chocks under the tires when the vehicle was parked for any length of time.

The wheels are mounted in pairs on trunnion axles located at the ends of the walking beams. The wedge-shaped projection below each side of the axle is a jacking bracket, to give a stable surface to engage the top of a hydraulic jack when it is necessary to change the wheels.



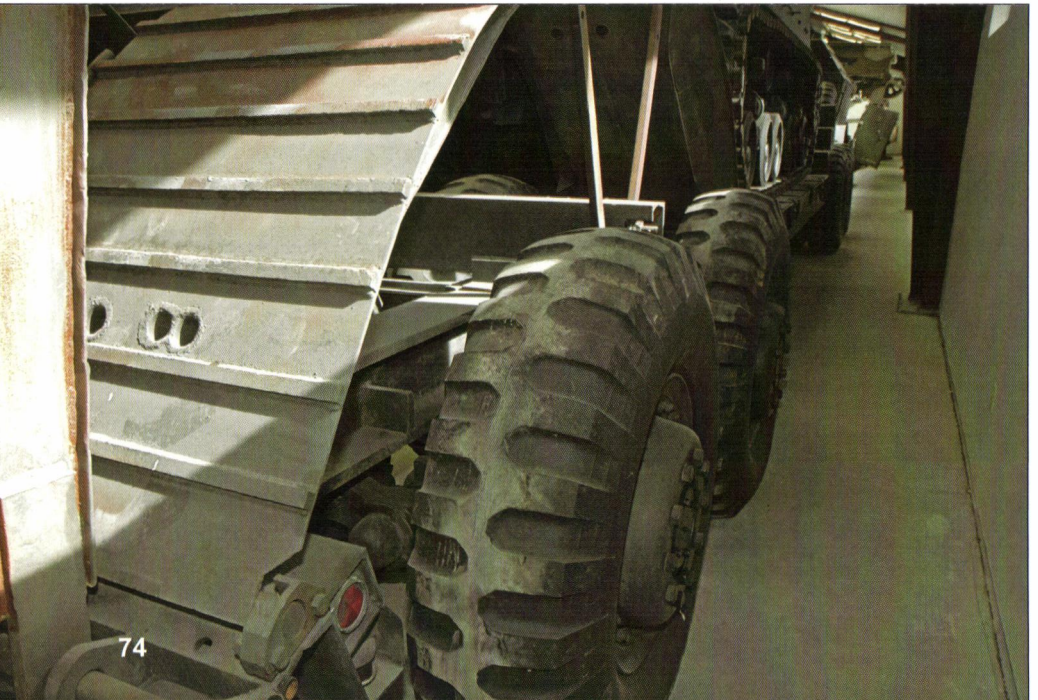
The rusty vertical streaks on the rear cross member of this M15A2 indicate where four hinge brackets for the ramps were removed. Prominent on the upper deck are the spare tire and the vertical cable rollers.

Each of the ramps on this M15A2 has its full complement of five hinge brackets on the rear cross member. At the center of the rear cross member, part of the removable roller is visible. (Chris Hughes)

The open ends of the rear cross member of the chassis make for a handy stowage space. An implement is tucked within the recess, with a diagonal retainer pin pushed through the cross member to hold the items in place.

Tread strips are welded to the upper surfaces of the wheel guards. Sitting in the bed of the vehicle is a Sherman tank. (Chris Hughes)

The rear of the right beam of the chassis has a curved top. Plates are welded in the recess of the girder for added strength.



Viewed from the inside of the outer front right tire is the trunnion axle. The horizontal rod is the brake cam, with the brake-cam bearing mounted to the axle at the lower left. In the background are the trailer supports.

To the front of the outer front right tire (left) is the rear of the right platform drop skid (lower right). A left drop skid is on the opposite side of the vehicle. These comprise wooden beams attached to a steel frame incorporating mounting brackets. At the center is the outer hinge pin and bearing of the front wheel guard.

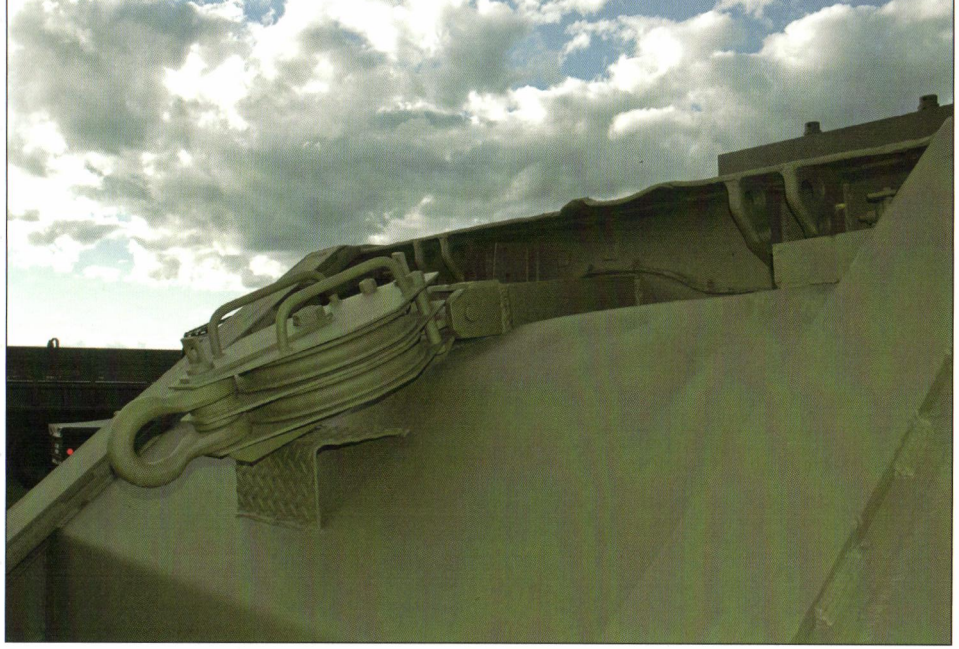
The rear of an M15A2 chassis is viewed from the front of the right front wheel guard (left). On the top surface of the upper cross member between the front and rear sets of tires are lugs for the safety chains used when the ramps are in the travel position (not used in this case) and holes for installing a removable roller.

In this close-up of the rear of the top plate of the fairing in front of the outer front right wheel, a cutout is visible around the hinge-pin bearing of the wheel guard. At the lower right is a stake pocket, with welding seams visible where it is joined to the top plate.

Another view of a platform drop skid, showing how the wooden beams are bolted to the steel frame. The brackets incorporated into the beam are attached to the chassis frame with pins.

The right side of the neck of an M15A2 is viewed from over the rear tires of the coupled M26A1 tractor. The raised trailer support is at the center, at the bottom of the neck girder. The service (upper) and blackout (lower) clearance lights are mounted next to the steps, under the upper platform. In the distance is the fairing in front of the trailer tires.

The M15-series semi-trailers experienced successive increases in maximum gross capacity, from 40 tons on the M15 and 45 tons on the M15A1, to 50 tons on the M15A2 (shown here). To bear the extra load, reinforcements were added to the chassis, such as these auxiliary plates welded to the neck girders.



A two-sheave snatch block is attached to a shackle at the rear of the upper platform and rests on a diamond-tread step welded to the neck of the trailer. To the right is visible the top reinforcing plate tack-welded to the left neck girder.

Common on the M15, these stowage lockers on the upper right side of this M15A2's top platform are not typical of the later M15A1 and M15A2. On this M15A2, the spare tire is mounted on the upper deck's left side, rather than the right, which is more common.

The spare tire is carried on a bracket on the right side of the upper platform, with the opening of the wheel resting on two holders. On the girder to the front of the bracket are nomenclature, data, and caution plates, and an amber reflector.

The spare tire bracket is viewed here from behind on the upper deck. To the left is one of the vertical rollers toward the front of the platform. The two tubes in the foreground with their tops welded to the cross member on the left are mounts for the crane.

This is the upper platform of an M15A2, viewed from the right side, with the front of the spare-tire bracket to the left. The two tubes on the front of the beam to the left are hoist pockets, which held a crane and hoist.

A removable horizontal roller is installed on top of the front cross member of the upper deck. Extra front-and-aft beams are incorporated in the frame below the vertical rollers, to brace the area around the kingpin on the underside of the platform.

Mounted permanently on the front of the upper platform are two vertical cable rollers. On both sides of the area to the left on the M15, the tire guards would have been stowed. A wire for trailer lights is along the beam at center.

The right support of the semi-trailer is shown collapsed and raised in its travel position. The main pin is being used to secure the unit to brackets; toward the top is another set of brackets where the top of the strut could be pinned in place for travel.

The king pin, which engages the fifth-wheel assembly on the tractor when the two vehicles are coupled, is at the center. It is surrounded by rubbed and burnished paint and metal. At the top are the trailer light socket, emergency (left) and service (right) air connections, and the pick-up bar.

The inside of the reinforced right neck girder is viewed from under the front platform of an M15A2. The trailer supports are deployed, and at the lower center are the brackets for pinning the support in the travel position.

The trailer support's base plate, which is called the "foot," is secured to the bottom of the strut with the main pin. The side brace is an integral part of the strut.

The left support of an M15A1 is viewed from below the center of the upper platform. On some earlier M15s, the side brace was a cylindrical structure with a gusseted mounting bracket at the top end, instead of the heavy-duty, cast structure seen here.

An M26A1 tractor coupled to an M15A1 semi-trailer is being used to transport another type of recovery vehicle, an M74 medium recovery vehicle. The tractor and trailer have extensive yellow markings for safety purposes, including diagonal stripes on the bumper, cab side steps, and trailer steps. The rigid distance marker flags are also yellow. (Verne Kindschi)

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